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ABSTRACT

The report drawn from the third annual conference that was designed to provide professional dialogue for those concerned with the improvement of college reading programs, this volume contains ten papers that deal with the following topics: the certification of reading teachers, diagnosing the reading needs of college students, a multimedia self-instructional systems approach to word study, a vocabulary development program, activating the college reader, utilizing known factors to increase reading speed and flexibility, using the visual-auditory-kinesthetic spelling technique to solve severe spelling problems, a clinical approach to remedial reading, ways to meet the needs of college readers more effectively, and a study habits program based on modern learning theory principles. (MAI)

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COLLEGE READING GOALS FOR THE 70'S

PROCEEDINGS
OF THE
THIRD ANNUAL CONFERENCE
OF THE

WESTERN COLLEGE READING ASSOCIATION

Frank L. Christ
Editor

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VOLUME III

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Should All Reading Teachers Be Certified?

IRWIN JOFFE

Phoenix College

A young student, just recently out of high school has decided to attend college. He has heard that a college graduate earns \$125,00 more in his lifetime than a high school graduate; various counselors have urged him to attend college (mostly based on the fact that he seems bright and alert and interested) and his girlfriend has urged him on. He wouldn't have hesitated except that he knows that he has a severe reading problem. He understands what is said in class but cannot read the textbooks or other assignments. He is never able to finish important exams, more so because it takes so long to read the questions than because he doesn't know the answer. However, he has been told that Revolving Door Junior College has what is called an open door policy. It has a college reading program he has heard. He attends. He registers for a reading course. One year later he has quit college, discouraged, with shattered feelings of self worth. Once again, another reading program has failed to teach him to read. Is this a hypothetical, isolated case? I think not. Unfortunately, the well-meaning open door college, theoretically designed to meet the academic needs of all students has become a revolving door for many students.

The theme of our conference this year concerns itself with college reading goals for the 70's. This title suggests a number of things. First, that we should be far sighted, that we should look ahead to the future, that we can look ahead to the future. Second, it presupposes that we can and want to set goals for the future and third, it suggests that we can fulfill these goals (otherwise why set goals). Of course it also presupposes that we are flexible, and that if we do set new goals it is perhaps because we aren't completely satisfied with the way we are doing things now. What things can interfere with our achieving goals that we set for the future?

1. It is very difficult to introspect. Our egos often interfere with objective introspections. Yet if we don't understand and face up to the faults in our reading program and in our own preparation, reading in the 70's may not be any more in keeping with student needs than many present programs. We must examine our current programs and our current methods of preparing teachers of reading with a critical professional eye if we are to meet future reading needs.
2. A disinterested or disenchanted administration, or even one that doesn't understand our place in the academic gestalt can hurt the reading program.
3. Our own inadequacies in preparation sometimes tempt us to latch on to programs that we can handle most easily. Too often, that means doing things designed to increase reading speed and measuring our own ability and student progress by how much faster students read. Unfortunately this won't help the student described previously. We all know about the knowledge explosion. A statement about how new information is doubling every few years would be redundant to this group. Its implications and the responsibilities it places upon reading teachers is obvious. Not so obvious perhaps, is how to meet these responsibilities. As I see it, there are no magic formulas for establishing reading goals for the 70's. As I see it, there are things that must be done in order to meet the reading needs of the 70's and in order to provide for all students the opportunity to do skillful, satisfying reading for information, retrieval, and for pleasure. What are these objectives? I submit that the following seven points must be considered.

1. We must have properly prepared classroom teachers of college reading skills.

If only teacher training programs for college reading teachers were as carefully organized as those designed to train elementary school reading teachers, the college reading teacher might feel more secure about doing a better job. Too few teachers of college reading classes have been specifically trained for that job. Often someone, anyone, from perhaps the English Department, is assigned this "chore." In some university programs, a graduate assistant is given the job. The graduate assistant at least has some training in reading, although he is usually not specifically trained to teach college students. Even when he is, the college reading class he is assigned to teach becomes his practicum. The program is geared to helping graduate students rather than college freshmen who need help.

I would suggest that the college reading teacher should have the following competencies if he is to do an effective job.

- a. He should have cognitive competency. He should have the knowledge necessary to teach reading skills. Since programs specifically designed to prepare teachers of college reading courses seem to be virtually non-existent, the college classroom skills teacher often has to probe and search and research the literature to discover which skills to teach and how to teach them. There are, fortunately, some good books on the market which can act as a guide here. It is urgent that college reading teachers learn what the skills are and how to teach them. Too often we tell students that it is important to find main ideas in paragraphs and that, although they often appear in topic sentences, we can't depend upon finding them there. Then we ask students to practice with some paragraphs that we have selected. If they do so without difficulty, we feel we have accomplished our goal. If the student has difficulty, we assume that he needs more practice and so we expose him to more paragraphs. Why should he be able to handle the second set of paragraphs any more easily than the first set? We still haven't taught him how to find main ideas in paragraphs. He still doesn't have a technique, a method for finding key thoughts. A poor reader doesn't become a good reader by doing more reading. All that happens is that he does more poor reading unless we can provide him with some new approaches, new ways to read with better understanding. Then he can practice exercises applying the new technique. Why don't we do this? The teacher himself is unaware of these techniques. He doesn't have the cognitive competence to do a good job. To make matters worse, the student often feels that it is his fault that he didn't learn the technique. His feelings of self worth have been affected and he is on the way to the revolving door, a college dropout and a waste of potential talent.
- b. He should have pedagogical excellence. He must know how to teach skills instead of just exposing students to skills. He must be sensitive to techniques for communicating with college students. Methods of teaching the SQ3R study technique is an example of this. Students are often not impressed with SQ3R. They say that it doesn't work for them. I wonder if this is because the technique is not really a good one or if it is at least partly because it just wasn't taught. Outlining the method or even giving step-by-step

instructions for applying SQ3R is not enough. It is important that SQ3R be explained, one step at a time, and that each step be carefully illustrated. This should be followed by practice in the method with at least two selections, one of which should come from a textbook used by the student. The student then tries SQ3R on his own, reporting back on the results in a conference with his teacher. Only then may the teacher feel that the technique has been taught.

- c. He should have training in and be sensitive to the emotional/psychological needs of college students. He should understand the psychological, etiological, and sociological factors that make up the college students' reading disability.
- d. He should have a knowledge of materials that have been prepared for college age students. He should keep abreast of new materials. He should have a knowledge of diagnostic techniques and procedures for identifying college students with reading disability and for measuring their progress or lack of it.

2. We must have college reading programs with teeth in them rather than just lip service programs.

A college or university has the responsibility for having integrity in its programs and in its utterances to the public. It is not enough to say that the college wishes to have a reading program and then to effectuate this utterance by asking some faculty member to teach a course or two somewhere. I urge that college reading people everywhere work as hard as they can to effectuate full fledged reading programs in their schools. I urge that we request the support of organizations such as WCRA, the other college reading associations, and the International Reading Association.

What should be the nature of a strong program? First it should be an all encompassing program. It should help the student whose comprehension, critical evaluation, and vocabulary skills are below college level. It should help the student who has word attack problems at an elementary level and it should help the student who has word attack problems at an elementary level and it should also provide courses for students who function well at college level but who wish to sharpen their skills. It can be set up as a formal classroom program or it can be organized as a clinic program. It can offer college credit or it can deny it. Good programs can be worked out on any of these terms. The important thing is that there is a program.

Second, students with reading disability should be dis-

couraged from continuing past the freshman year until the reading problem has been corrected. We do a disservice to students when we allow them to put off attending to this problem. Admittedly, this is an unpopular view, but the reading demands of the 70's will not allow for compromise.

3. We must have strong administrative support for the college reading program.

An administrator who speaks favorably about the college reading program gives prestige to that program in the eyes of the faculty. My experience is that the faculty, in turn, passes on that positive feeling to students, recommending reading skills training and actively promoting it among their students.

Administrators should also encourage reading teachers to attend conferences and other professional meetings. They should also provide for adequate funds to purchase materials.

4. We must enlist community support for our program.

The community can help to provide support for the college reading program by providing community reading programs. These programs can be of two types. Reading improvement courses for business and professional people, offered on a non-credit basis, reaps many rewards in terms of enthusiasm and positive feeling for college reading programs. Other non credit, clinic-type courses for youngsters in the community who have reading problems often results in people looking to the institution to meet reading needs. Remember that the business or professional person and the parents of the student with reading disability are taxpayers whose support (or lack of it) can make or break a college reading program.

5. We must define our goals for the college reading program and we must have significant diagnostic tools to measure our success in reaching our goals.

Too often, we really are not sure of what it is that we want to do in college reading courses. Too often, it is felt that all we need to do at this level is to teach students how to read faster and perhaps how to study according to Francis Robinson's SQ3R formula or some variation of it.

Pre and post testing is done, students are told about being flexible, there is discussion on skimming and scanning skills, selections are read for practice both with and without instruments, the student goes from 200 words per minute to 500 words per minute and we pat ourselves on the back and say, "Well done." Is this a college reading program? If it is, then it is no wonder that our discipline is sometimes treated with lack of respect by faculty, students, and administration. The

organizer of a reading program must set goals consistent with student needs. One does not build up speed and flexibility in reading by just pushing a little faster. If reading really is to be defined as understanding and interpreting ideas, then we read faster only as we become skilled in understanding what we read. We do that by learning how authors put ideas together (paragraph analysis). We learn about main ideas and paragraph relationships and outlining. We learn about vocabulary skills and critical reading skills and reading figurative language. Only by applying these skills do we then begin to consistently read faster. Only then does reading rate improve and stay improved. If this is so, and I submit that it is, then we must set goals that include the teaching of the above skills. We must also try to be sure that we are accomplishing our goals by some kind of significant diagnostic testing. I have yet to find a standardized test that really measures improvement in the various skills mentioned above or even diagnoses them correctly in the first place. In addition, no test that I know of measures attitudinal progress. So many students enter the program with poor self-image. They are convinced that something is wrong with them because others have learned to read and they haven't. After a semester in a reading class they have more confidence, they finally feel that they can break the reading barrier, they are ready to read. They haven't made any skill progress to speak of, but they are ready to do so. Reading readiness exists at the college level as well as at lower levels. Yet, none of this gain in the affective domain is measured by standardized tests. I think it is urgent that we have valid, reliable diagnostic tools that measure all the facets of reading improvement, both cognitive and affective. I don't know what the nature of this instrument or instruments will be but I think that this is one task we should tackle and should encourage graduate, doctoral students to pursue.

6. We must seek out, evaluate, and assimilate the results of research.

There are too many myths that persist about what to teach in order to improve reading skills. The techniques involved have been accepted on faith for many years and do not have the verification of research studies to prove their value. Just recently, I read a very interesting study that suggests that the SQ3R study method is a myth, does not necessarily work and may even hurt the effectiveness of some students in their study habits. SQ3R has been assured for many years to be the best method for study. There probably have been thousands of classrooms in which this approach has been taught. Yet, the research to support the idea that this method works is non-existent for some steps and highly inadequate for others. As a matter of fact there is some research to indicate that the Question step

may actually interfere with adequate comprehension. Please understand that I am not advocating that we stop teaching SQ3R. As a matter of fact, I think that the negative study of SQ3R has some very significant flaws of its own. The point remains, however, that we accept many so called facts about reading skills and techniques without their having been exposed to close scientific scrutiny. Those of us who are involved in training masters and doctoral candidates can encourage close scrutiny of techniques and long accepted myths. What evidence do we actually have to support our methods for teaching vocabulary skills? How do we know that reading from left to right, one line at a time, is the most effective method. (There is research that suggests that we can use vertical as well as horizontal peripheral vision for most effective reading.) I strongly urge that we accumulate a body of knowledge in our discipline based on research instead of on myths and superstitions.

7. We must provide guideline for prospective teachers of college reading, trainers of college teachers, and deans, college presidents, reading department heads and others who hire college reading personnel.

The Professional Ethics and Standards Committee of I. R. A. recently met in Kansas City to work up a suggested proposal for the roles, responsibilities, qualifications, and standards for college reading personnel. Our president elect, Dr. Ned Marksheffel, and I were invited to participate in that meeting. Time does not permit me to fully outline the guidelines that were proposed there. Suffice it to say at this time that I heartily endorse those guidelines. They will be discussed at our business meeting later today. The important point that I wish to make here is that college reading personnel should be provided with guidelines which will outline the types of reading jobs at the college level, the duties and responsibilities relative to these jobs, and their requirements in terms of training and experience. This will help guarantee certain minimum strengths and abilities among college reading teachers. It should help to implement the first six points that were made and it should give reading personnel a sense of security and a feeling of satisfaction that they possess the expertise necessary to be successful with their students.

In addition, such guidelines will encourage those who seek out new personnel (deans, department chairmen) to assess prospective candidates for employment in light of these guidelines. This again should upgrade the level of teacher who is hired. It should prevent an English department chairman or a dean from assigning just any member of the department to work as the reading person on the assumption that, after all, anybody can teach reading. It should give improved status to the reading personnel.

The title of this address, as listed in the program is, Should All Reading Teachers Be Certified? It is an unfortunate title because it implies a sort of dogmatic regimentation. At least my experiences with inflexible certificating agencies indicates this. I would rather say that the guidelines mentioned above will more adequately do the job. They will give us everything that we need and desire to face reading in the 70's with confidence and enthusiasm, but will not be stilted and inflexible, sacrificing the spirit of qualification for the letter of the law. I heartily propose guidelines as standards for college reading teachers.

Diagnosing College Students Reading Needs

RICHARD P. WILLIAMS

University of Oklahoma

Exercising speaker's rights, I would like to introduce this paper with a personal illustration by giving an analogy of a diagnostic approach to college reading needs. Some time ago, I was in the theatre watching a movie, compulsively eating a piece of my favorite candy, a Bit-O-Honey bar. Something exciting happened in the movie, I gave a hard bite. You know what happened. When I removed the candy from my tooth with my tongue, I also removed a filling from my tooth. Now I hate to go to a dentist, but my wife found out what happened and started heckling me to make an appointment to see the dentist. After three or four weeks of this marital harassment, I called for a dental appointment explaining to the secretary I had just one tooth that had to have the filling replaced. The dentist secretary gave me an appointment which brought much immediate happiness to me, approximately two months away. Between the time I made the appointment and the time I arrived at the dentist office to have the tooth refilled, I had lost another filling.

As I arrived at the dentist office a cute little receptionist asked me if I would like to have a cup of coffee while I waited for the dentist. And I immediately responded, "Yes." Then I was ushered into the dental diagnostic room where I noticed what appeared to be the very latest dental equipment. I sat in a dental chair as this social hostess served me a cup of coffee and said that it would only be a few minutes to see the dentist. As soon as I finished drinking my coffee, a dental technician came in, a striking young lady, she started to wrap me up in an apron and bib. While she worked, she informed me that she wanted to X-ray my teeth. I protested that I only had two fillings that I wanted replaced.

The dental technician, being carefully schooled, immediately responded, "Yes, the dentist must know if there is any

cavity in the tooth before filling it." I relaxed to permit the dental technician to take six X-ray pictures of my mouth. Upon the completion of this task, she asked if I would like another cup of coffee while we waited for the pictures to dry. At this time I met the dentist who simply said, "Good morning, what seems to be the problem?" I gave him my diagnosis that I had lost two fillings and needed to have them replaced. He started looking and poking in the upper left hand corner of my mouth. I needed fillings in the lower mouth. As the dentist continued to look and poke, he used a vocabulary which I did not understand. The dental technician would write something. The dentist kept poking, scratching and picking around in my mouth. By this time, I had the white knuckle panic, not liking dentists to begin with, I was completely lost as to what the dentist was doing. The dentist stopped, shook his head, "Mr. Williams," he said, "what we will have to do is make a complete diagnosis of your mouth." He continued, "You see the X-rays we have here, these four are not as clear as these two. We need to re-X-ray your mouth as we did with these last two pictures. These new X-rays will provide a full view of what your dental needs are. Next we want to build a model of your mouth. It will set here on the counter and we'll take a look at it. You see in the past, Mr. Williams, you have had patch-work dentistry. Being a professional man, your mouth is very important. You are constantly meeting people. You need to have a good appearance. Being a professional man myself, I would like to do this for you."

"Well, Mr. Dentist, when will you fill these two teeth? Will you do it this morning?" "Oh, no these teeth aren't in bad shape at all." I thought it was bad to have two teeth without fillings.

"How much is this going to cost?"

"Well, the total diagnosis will run, including today's visit \$150. This will permit us to know what the picture will be and what it will cost after that."

"Well, how long will this take?"

"Well, we don't really know until we have finished the diagnosis because we don't know what the problems are yet."

"I see, well how long have some of your patients been coming to see you?"

"Well, we have one lady who has a standing appointment once a week and she has been coming for four years."

"Well I'll have to think this over." I quickly exited, paid the receptionist for the time I had spent with the dentist and went back to my office.

As you might have guessed, this experience with the dentist might be compared with that of the clinical approach to diagnosing college reading needs. The total diagnosis approach has other labels attached to it, such as directive approach, counselor-centered approach, and specific approach. A rose by

another name. The objective of this approach is to obtain as much information as possible before beginning to work to solve any individual problems. So there are several things that we must consider in this particular approach. First, a valid measure of intelligent functioning? This can be obtained either from Stanford Binet Intelligent Scale, or the Wechsler Adult Intelligent Scale. Once this test is administered, one would want a developmental history to determine if there is any physical conditions, illnesses, diseases, or injuries that may impede reading progress at the college level. Third in the diagnosis is an educational history. This may be secured from the college counselor or from the student by interview or possibly even looking at his transcript to determine if possible educational influences that may have contributed to the reading disability. The fourth major area of diagnosis would be adequate test of vision and hearing, to identify obvious relationships to the reading act. The fifth area would be an evaluation of oral and silent reading with appropriate comprehension checks. The reading tests might be of a surveying nature to begin; however, more sophisticated tests will be administered. Following the standardized individual diagnostic tests, informal appraisals will be administered to measure word attack skills, knowledge of phonics, skill in determining the main idea from a particular paragraph for passage? And before the final decision can be made related to this individual, one would want to administer some type of personality test to insure the instructor that the student's personality is appropriate for learning the reading task.

The total testing procedure in gathering this data, is often interwoven with formal and informal interviews in an attempt for some subjective decisions to be made by the diagnostician. Once a complete diagnosis is made, professional decisions will be made as to where corrective instructions will begin. The patterns that generally follow has been summarized very well by Effie Kaye Adams in an article entitled "Tutoring: An Aspect of Clinical Procedures in College Reading Laboratory," printed in the 17th Yearbook of the National Reading Conference. To support the full battery of tests that are often administered under the clinical approach Adams in the same article lists the following materials: WISC/WAIS, Stanford-Binet, Otis Quick Scoring TMA, California MMT, Inventories: Hostra Informal, Botel Reading, Standard Reading, Betts Informal Reading, Peabody PVT, Large-Thorndike, Harris, SRA, Primary MA, Differential Aptitude, Scholastic Aptitude, Reading Tests: Ammons and Ammons, California Reading, Cooperative Reading and Spelling, Davis Reading, Developmental Reading, Diagnostic Reading, Durrell Analysis, Gates-McKillop Reading, Gates Primary Tests, Gilmore Oral Reading, Gray's Oral Reading Paragraphs, Iowa Silent Reading, Informal Basal Reading, Learning Methods Tests, McCullogh Word Analysis, Metropolitan Achiev-

ment, Michigan Vocabulary Profile, Minnesota Study Habits, Nelson Denny Reading, Phonics Survey (IOWA), Roswell-Chall Diagnostic, Silent Reading Diagnostic, Spache Diagnostics Scale, SRA Reading Survey, Stanford Achievement, Stanford Reading Test Diagnostic, Spitzer Study Skills, Word Attack Skills Inventory (Central State College), Wide Range Achievement Tests, Dolch Word List, Projective Techniques; Kent-Rosenzweig Frustration, Roschach, Raven, Sensitory Screening; Bender-Gestalt, Benton Visual Retention, Frostig Developmental Test of Visual Perception, Illinois Test of Psycho-Linguistic Ability, Visual and Auditorial Screening. The author continues her article to state that Ohio State University for example, revealed that more than 100 different tests are available for use by tutors while the University of Chicago list totals more than 60. Remember most of these tests take a student to his frustration level. The student receives more failure before they offer any corrective procedures, just as the poor patient sitting in the dentist chair waiting to have a tooth filled must go through hours of diagnosis re-X-raying the mouth, building the model of the mouth, before his immediate needs or even long range goals can be accepted. However, the advantage of this approach is that once the tutoring begins time is not wasted because one has an adequate diagnosis of the total picture of the particular student.

A second type of college reading diagnosis currently being conducted can be compared to a recent experience I personally encountered. I have never been the type of individual that contacted viruses or communicable diseases, working as a teacher I have always been immune. I was in New Mexico doing some work with the Indians. I was told not to go into the Santa Domingo Indian Pueblo because they had the flu. This didn't bother me. I never get sick. However, I contacted the virus and a few days later found myself back in Oklahoma at home in bed. After the third day, my total family had contracted the virus, so my wife, two children and myself all made a visit to see the doctor. The medical doctor diagnosed that I had a particular kind of virus, my wife had the different type of virus and the two children had the third type of a virus. He instructed the nurse to come in and give each of us a shot of penicillin. The two adults get twice as much as each of the children. The doctor's diagnosis reveals three different problems but everyone received the same shot. Many college reading programs practice this approach. Regardless of the diagnosis, everyone receives the same medicine.

This approach to diagnosis is often referred to as the survey diagnosis. Survey diagnosis is an attempt to measure a weak area in Reading to place the student in a track program. This approach is often labeled as individualized instruction; however, students are generally forced to follow a particular line of training. A Nelson Denny Reading Test or Cooperative

Reading Test is administered to get a score in vocabulary, comprehension, and rate. The instructor then analyzes which area is the lowest; and, of course, if all areas are equally low, he generally selects vocabulary as his place for beginning work. The program is classified into four different tracks. 1) A textbook; 2) A workbook; 3) Some type of program material; or 4) a machine. The student has already purchased his workbook or textbook prior to the diagnosis or the screening test which means regardless of the diagnoses, everyone gets the same medicine. It is just a matter of then turning the book to the vocabulary section or finding your vocabulary section of your vocabulary materials if there is a low score in vocabulary. If there is a low score in comprehension, the instructor selects the workbook or the program material, or possibly even the machine that has prepared material in the area. Instruction is of a general nature, rather than a specific nature. It is a track approach. Give a test to every student and place him in a track to improve vocabulary, comprehension, or rate. Post test to support you have a good program. The material for track programs are often determined by the following questions: a) Has the instructor printed materials or a textbook? b) Has one of his personal friends published a book or materials? or c) Who is the most prestigious name that we can bring to our reading program? The materials are selected before anyone is diagnosed—often a year before a student enrolls in the course. Remember regardless of the diagnosis everyone receives the same medicine.

Permit me now to come to the defense of those who have published a test, or published a textbook or materials. When the authors developed their materials they felt a specific need was being met, and they met it. Because they met a specific need, it would now be a gross mistake to assume that all needs of all college students can be met by any one given book, material, or test.

These track programs often give little more than drill, practice, or reinforcement to skills already learned. The assumption that college students know reading skills or how to read when they enroll and they only need to be reminded of the skills they have forgotten is false. Some students come into the college reading improvement course who do not know how to read or what the reading skills are.

Diagnosis for placement in a track has many problems. The simple educational cliché "start where the college student is; help him progress as far as he can as fast as he is able" is often quoted. However, we do not know where the student is and currently have no instrument to tell us. I was caught with the track program when I was at New Mexico State University. We had placed 73 students in SRA Lab 4. We conducted this analysis during the seventh week of instruction. Students were meeting three times a week. A survey reading test was

administered and students were placed in tracks. Each subject was instructed to select his next passage in reading of the SRA Lab. Each subject selected a different card with a reading passage and ten multiple choice questions from the lab. The graduate assistant instructed each subject to answer the 10 multiple choice questions which SRA designed to measure comprehension before reading the passage. Upon completion of the ten multiple choice questions, subjects were instructed to read the passage from SRA Lab 4. After reading the individual passage, subjects were instructed to answer the 10 multiple choice questions he had answered before reading the passage. The pre-test was an attempt to measure the amount of comprehension the subject brought to the printed sheet before reading. The post-test was an attempt to measure the amount of comprehension the subject took from the printed page after reading. Over 10% of the subjects had comprehension scores of 80% or higher before they read the material. One student had 100% comprehension before reading the passage. All students brought a minimum of 20% or more comprehension to the page before reading the passage. After reading the test, all subjects except three had a minimum comprehension score of 70%. Sixty-five of the sample scored 80% or higher. No subject scored below 60% comprehension after reading the passage. Upon these findings we felt fortunate that we had these students placed in the Track in the appropriate place. However, when we looked at the change of comprehension scores between the pre- and the post, we found that all subjects, except five made positive gains in comprehension after reading the passage. Five subjects either made no change or lost comprehension from the pre-test to the post-test. The greatest change was a 70% increase. We found that two students actually lost comprehension by reading the simple SRA card and that these students had severe comprehension problems. A simple diagnosis test, survey test, and placing in a track program to improve vocabulary, using a textbook, a workbook, some program material or machine, or to improve comprehension using the same type of approach, is not meeting the needs of all our college freshmen. These programs are often more machine-oriented than teacher-oriented. Audio-visual materials are used in reading to prepare the student for reading, to get his attention, to develop background, to introduce and to illustrate new words, to extend interest, and to extend skills and abilities. All students use the same materials but in many programs progress at their own rates. The effectiveness of the student's progress is recorded with each assignment. If proper progress is made at one level, he can then move up to the next level. This program does not correct for specific weaknesses in content areas. It is a control program to develop rate, vocabulary, and comprehension skills. The goal of the program is to provide for an increase in reading ability, something that can

be measured on a standardized achievement test score.

This paper was introduced with a personal experience of going to the dentist and not getting care for my teeth. I want you to know, I called another dentist's office and explained my situation to the receptionist. I would wager she could tell that I was very hostile. She gave me an appointment within a week. I went into the dentist, sat in the chair, no coffee served, no sexy receptionist, in fact she was more like a retired old maid school teacher. The dental assistant was pleasant and efficient. The dentist said, "What seems to be the problem?" I explained I had two teeth that needed to be filled. Would you believe he started to fill them!? After filling the two teeth, he told me that I had some other work that needed to be done. He assured me it could be completed in two appointments. I made the appointments, went back, and as the dentist continued to correct a problem he would then reveal another problem until he had what he considered my dental needs met.

This approach, that starts where the patient says he is, corrects, diagnoses, and corrects, can be labeled the teacher or practitioner approach. The practitioner approach to diagnosis permits the student to diagnose his problem, with the teacher attempting to correct it. As instruction or correction takes place, the classroom teacher diagnoses other problems in an attempt to correct the total reading disability. A continuous cycle of correction, diagnosis, correction, diagnosis is followed. Ruth Strang has said we start with the problem as a student presents it, and begin immediately to help him solve it. Diagnosis is interwoven with instruction and practice in reading. A student should feel that he made some progress during each meeting for diagnosis. By combining diagnosis with instruction, the students are given the satisfaction of accomplishing something every time they meet with the instructor. This approach to diagnosis follows a developmental program that is continuous and provides for each individual to be taken at his present instructional level. It meets his needs with a program that encourages him to improve or advance in reading skills, concepts, and interests. The aim of the practitioner approach is to help the student achieve to his maximum potential or to pass the course in which he is currently enrolled.

A standardized survey test is often administered in this approach in order to give the student the knowledge of how well he reads, what his areas of strength are, as well as his areas of weakness, that he might select a specific reading skill he has the need to acquire and work upon it. This approach to diagnosis permits the college student to decide what area he specifically wants improvement and how much improvement he will make. The teacher must stimulate the student, inform him, and guide him; but the student should understand that he can improve his reading ability and that the responsibility for

doing so rests within him. The student is given an opportunity to set up his own reading objectives and to obtain them at his own rate, in accordance with his own plan. Whenever the student identifies a specific problem, or what appears to be a problem to the student, at that time some attempt is made to correct his problem. This approach to diagnosis encourages the student to bring the textbooks from the courses in which he is currently enrolled. If his weakness is in vocabulary, he works on improving his vocabulary in the textbook to meet an immediate goal in passing the course. Whereas if his problem is in comprehension, he may work in his textbook on comprehension skills, reading for main ideas, reading for purpose, and reading to make ideas his own. He learns to skim a textbook, to develop adequate rate and flexibility, and to concentrate from his own textbook. Instruction should be simple, direct, and specific to meet the immediate needs of the diagnosed problem, whether diagnosis comes from pupil or teacher.

Throughout the instructional program, the student goes through a process of personal evaluation of reading problems and informal testing methods and observations for diagnosis by the teacher. The student's needs are recognized, and teacher-pupil learning goals are established. The student is led by logical and sequential steps to mastery of reading skills.

A Multimedia Self-Instructional Systems Approach to Word Study

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Before beginning a description of the multimedia self-instructional systems approach to word study and vocabulary enrichment, a program currently under development at Columbia Junior College, it is perhaps necessary to define a few of the terms and concepts related to this systems approach.

The term "system" has numerous meanings dependent upon the context in which it is used. It could mean a highway system, a school system, a biological system, or any number of other systems. An "instructional system" in the context of this description is meant to denote a sequence of learning experiences for a student to learn a particular skill or to display a desired behavioral pattern. A "multimedia" instructional system utilizes a variety of materials--books, or other printed materials, films, filmstrips, slides and other visual aids, single-concept tapes in both cassetts and reel to reel format, and combinations of all of the above, usually called full programs or learning packages.

A multimedia "self-instructional" system uses individualized programed teaching techniques and devices to permit each learner to proceed through the instructional system at his own pace. Thus, a multimedia self-instructional system in word study and vocabulary enrichment is a series of lessons presented with tapes, films or filmstrips, books and other printed matter, and programed materials. The student progresses from one lesson to the next at his own rate. Upon completion of the program, the student has attained a predetermined level of competence in word study and vocabulary enrichment.

The theoretical basis for the multimedia self-instructional systems approach is essentially programed learning theory. However, this theory has been modified on the basis of experience in the use of programed materials in the classroom. Two important modifications applied to the development of the instructional

systems approach are 1) the use of a wide variety of materials and techniques to achieve the objectives of the program and 2) the establishment at the very beginning of the program of specific performance goals which are to be attained at the completion of the program.

Most of the programmed materials with which all of us are familiar are single format materials, the most common of which is the programmed text. The limitations of this single format material are obvious in light of what we already know of how people learn. The traditional programmed text does perform an adequate service for those learners who respond to reading and writing modes, but for those learners who respond best to listening and visual aid modes the traditional programmed text is many times inadequate. As a consequence, the use of multimedia materials in the instructional system is necessary in order to accommodate the various learning modes.

The establishment of specific performance goals, called "terminal cause objectives," at the beginning of the program, provides advantages for both the learner and the teacher. The learner knows what is expected of him and the teacher can more readily evaluate growth. Precise statements of behavioral objectives are written, both for the broad terminal goals of the whole instructional system and for the objectives of the or units within the system. Except for very broad statements of purpose such as, "The improvement of your reading ability" or "the sharpening of your capacity to better deal with academic terms," very few commercial texts, even programmed texts, state specific performance goals. A few texts, however, do state behavioral objectives for each unit or chapter in the text. Cambell and Lindfors in their book, Insights Into English Structure: A Programmed Course, for example, states in a headnote at the beginning of each unit what the student will be able to do when he finishes the section. The headnote for Section I reads: "In Section I you will study nine English sounds. At the end of this lesson you will be able to:

- a) identify these sounds in English words;
- b) recognize and write a symbol for each sound;
- c) label diagrams showing the parts of the mouth that are important in the production of these sounds;
- d) describe how these sounds are made;
- e) label three categories to which these nine sounds belong;
- f) list these sounds in three appropriate categories."

By reviewing these expectations periodically while working with the program, the student and the teacher can better assess progress in this unit.

Similar specific performance goals, along with the use of a variety of materials and techniques, are characteristic of the self-instructional systems program currently under development at Columbia Junior College.

And now, to a description of that program.

As with more traditional programs, a diagnostic battery is administered to assess current skill levels. This is accomplished in our case through the use of four instruments: 1) the Diagnostic Reading Test, Survey Section, Form A or B; 2) what we have called the Gilbert Vocabulary Test from Doris Gilbert's book, Power and Speed in Reading, 3) The Reading for Understanding Placement Test, Senior Edition, published by S.R.A. and, 4) The Survey of Reading/Study Efficiency by Frank Christ. The composite results of the first three tests as those results are reflected in a profile for each student, report not only the current gross skill levels but also provide a projection of potential levels of achievement. This projection of the potential level of achievement is an important piece of information for us in view of the character of the self-instructional systems model. With this information, to be more specific, it is easier to more accurately determine the progression of recommended materials with which the student is asked to work.

In the Learning Skills Center Library are housed some 80 different books, various audio-instructional programs, numerous film and filmstrip units and combinations of all of these materials on the general subject of reading and study skills improvement. After each student's current abilities have been assessed and plotted on a profile, the student is informed of the areas of strength and weakness, and an individualized program is prescribed. Each student's recommended program includes the use of a variety of instructional materials which in the judgment of the instructor are most suitable for the student's achievement level and for his potential achievement level. The assignment of particular materials is accomplished through the use of the Master Program Directory, a directory in the Skills Center which catalogs all of the available instructional materials. When the student receives his Recommended Program, all he sees beneath the area designated for improvement, e.g. "Vocabulary Improvement," is a series of numbers. These numbers correspond to books and other resources housed in the Skills Center Library. We cannot expect, of course, to have the student read the entire book or work through a complete series of tapes in a complete program; therefore he is directed to the Master Program Directory where he will find under the number for his book or other resource, and for the designated area of improvement, in this case vocabulary improvement, the page number or unit number on which he is to begin work. It is at this point that specific performance goals are written.

The entire class, during the introduction to the course, has been indoctrinated to the importance of establishing specific performance goals in both general reading and study type reading. After receiving their recommended program and procuring the materials with which they are to work, they have an opportunity to test their understanding of what it means to establish performance

goals. They are instructed, first of all, to preview the material in order to determine specifically what it is this chapter or unit is supposed to accomplish. They then write down on their exercise record sheet, what specific things they should be able to do after having completed the chapter or unit.

A student, for example, who had scored in the 67th percentile of the "Total Score" category of the Diagnostic Reading Test but only in the 53rd percentile in the Vocabulary section; who had scored a 53 on the Reading for Understanding test which is a designated grade placement of 14.0, and who had achieved a placement test score of 60 on the Gilbert Vocabulary Test, would be assigned under his recommended program in the area of "Vocabulary Improvement," book number 28. When the student goes to the Master Program Directory and looks up number 28 under "Vocabulary Improvement," he will find that he has been directed to Programed College Vocabulary 3600, by George Feinstein. The student will find, in addition, that he has been directed to Part I of the test which deals with Latin derivatives, Greek derivatives, Descriptive Words, etc. After locating and taking the book from the shelves in the library, the student goes to his carrel and begins the preview of those parts of Section 1 of the book assigned. Under Chapter I, Latin Derivatives, Feinstein has written,

"Chapter 1 focuses on fifty important Latin terms and their cluster of derivatives. An additional seventy-five Latin roots are presented in three supplementary exercises at the end of this chapter. First, memorize the Latin term and its definition, given at the beginning of each frame. Next, note carefully the example derivatives that follow in parentheses. Try to understand the connection between each of these derivatives and its Latin root. Then fill in the blanks."

What the student can expect to learn in this chapter, then, is clearly laid out for him. The student's job is now to translate what is to be learned into specific performance goals. Such a translation may read something like this:

At the completion of Chapter I, I will be able to:

- a) write down fifty important Latin derivatives
- b) define the meaning of each of the fifty Latin derivatives
- c) identify the connection between the derivatives and its Latin root

How successfully the student is able to achieve these self-evolved specific performance goals is in the case of the Feinstein book, measured at least in part by the Review Tests which

are included in each chapter. In the absence of such aids, the student himself can construct simple tests to evaluate his progress.

Students, once they become accustomed to the procedures of this self-instructional program, can more quickly and accurately establish these performance goals and begin to work immediately with the materials.

The student's performance with the various materials is checked frequently by the instructor to make certain that performance goals are being achieved. In the event that students aren't doing well with the material assigned, the performance goals are reevaluated and/or other materials with a more appropriate instructional level are recommended. Each student, of course, is recommended a number of materials, each with a somewhat different approach to the improvement of vocabulary skills. No matter what the material, however, the student is required to determine for himself the extent and complexity of performance goals.

One of the measures of the success of any skills improvement program is to compare pre and post test scores on a standardized test. Unfortunately, such raw or treated data is not available at this time. The multimedia self-instructional systems approach has been operational at Columbia Junior College only this quarter. The data should be available by the time this report is incorporated into the proceedings of the organization. Pre and post test comparison, however, are not the only measure of a skills program. Subjective student reaction, interest demonstrated by attendance, and the reflected gains apparent in progress charts are, in the opinion of the writer, sometimes an even more valid measure of success. If this latter means of evaluation is valid, it appears that the multimedia self-instructional systems approach is significantly more effective than other instructional models used by this writer in the past. Students report that they have been able to get a great deal more out of their content area by transferring in particular the specific performance goals technique to the study of these texts. They have, in addition, reported that their grades in the content area courses have been materially and positively affected by the transfer of techniques and skills learned in the reading program. Student behavior in the classroom has also been encouraging. Students are not only attentive and engrossed in their work while they are in the Learning Skills Center during regular class hours, but they often return during their free hours to resume their work. The progress charts kept by each student in his Syllabus for the course, with very few exceptions, show steady increases in skill levels. As far as overt evidence of improvement in vocabulary skills, perhaps the most gratifying testimonial to both this writer and to his students, is the report that most students are no longer cowed or snowed by the complex or frighteningly long terms encountered in the content

area courses. If such reports and graphic evidence are valid, then this approach is indeed a success for the students at Columbia Junior College who are enrolled in the reading program.

A Vocabulary Development Program at Western Washington State College

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The importance of an adequate listening, speaking, writing, and reading vocabulary to learners at all levels is well known. We realize that the correlation between the ability to succeed in virtually any subject and vocabulary is very high. Utsey (8) states that if one has command of the technical vocabulary of a field, he is in control of the area. However, many college students exhibit multiple types of deficiencies in their vocabularies. These deficiencies may be limited to specialized subjects such as biology, sociology or psychology; or the problem may be a limited development in all areas of vocabulary: speaking, listening, reading and writing.

Research studies on vocabulary development have sought to test ways by which improvement might be realized. The results of these studies show that it is possible to increase vocabulary through several avenues. Karlin (3) suggests wide reading in combination with direct and indirect programs for secondary students. Kingston (5) points out that direct vocabulary instruction probably will be more effective in assisting the student who has rich and varied concepts but a limited number of verbal symbols associated with them. Johnson (2) believed that the reading materials used for vocabulary development should be in the specific area in which improvement is wanted—science, psychology, education, etc.—and that general vocabulary development may be less effective.

When students enroll in the Western Washington State College Reading/Study Skills Program, a three-pronged attack to vocabulary development is programmed. Students are first of all encouraged to read at minimum four library or paperback books of their own choosing during the eight week study/skills program. They are told that one of their class hours will be involved with a small group activity where they will share their

knowledge of the books they have read with three or four other students. During this sharing time, they will be expected to pinpoint various words used by the author that were unfamiliar to them. In this way, we hope to encourage students to read widely for one aspect of their vocabulary development. Many students ask what procedures to use when encountering an unknown word in their recreational reading. Our advice is to determine its meaning from the context. Although many reading specialists would recommend looking up the word in the dictionary, our philosophy is that extensive dictionary work during this recreational type reading may interfere with the students' thinking and reading habits. Although context could provide a hazy and somewhat imprecise meaning, at least it acquaints the student with the word. Our purpose at this point is not precise dictionary meanings, but the ability to allow students to encounter a wide variety of words in context.

A second approach that we use for general vocabulary development is the direct teaching of vocabulary words taken from *30 Days to a More Powerful Vocabulary* by Funk and Lewis. (1) Students enrolled in the Reading/Study Skills classes are encouraged to purchase a copy of this book. During the first week of class, a schedule of days to complete is outlined for each student. At periodic intervals during the eight weeks, students are requested to take a short review quiz over specified sections of the book. This type of direct vocabulary development is supported by Karlin (4) as long as the following guidelines are used:

1. All students are not required to deal with identical words since weaknesses should determine degree of involvement in vocabulary study.
2. Words are studied in context rather than in isolation.
3. Emphasis is placed upon working rather than esoteric vocabulary.
4. Application of word learning is stressed.

Students seem to respond well to this book. Although some of the final chapters may be criticized because of the esoteric nature of the vocabulary, students feel that the general organization and format help them with their general vocabulary development.

The third approach used to develop vocabulary has to do with the subject areas. Because each Reading/Study Skills class section is limited to a maximum enrollment of fifteen, each of the student's program is individualized. Therefore, the college reading instructors set aside a portion of each student's reading program so that he can develop knowledge of technical vocabulary

words in specific content areas. Students bring in their textbooks from the content areas and work individually with the college reading instructor developing strategies for acquiring technical vocabulary. Since the college reading instructors are generalists, this is one of the most difficult parts of our vocabulary building program. Ideally, the most effective instruction in technical vocabulary occurs when subject matter instructors are involved in teaching the terms and concepts related to their individual disciplines. However, many regular college instructors lack knowledge about students' needs and the instructional strategies to meet their needs. We feel that our attempts to provide general strategies for technical vocabulary development is better than none at all. We apply some of the instructional strategies for vocabulary development recommended by Walter Pauk (7) and Arthur S. McDonald (6) to the particular textbooks that the students bring into the class. Future plans for expansion of this aspect of vocabulary development include requesting from those disciplines which are required for graduation and are the most difficult to our students lists of words and concepts crucial for an adequate understanding of the readings. We then plan to organize these terms and concepts into directed study units and eliminate the 30 Days to a More Powerful Vocabulary text. Students will then be given terms and concepts that will broaden their general vocabulary and will be relevant to their required undergraduate course work.

In summary, students are introduced to vocabulary development through a variety of approaches. Wide reading combined with direct and indirect approaches are used. As reading/study skills instructors, the sole responsibility for vocabulary development is not ours; however, we share this responsibility. Our task is to offer as meaningful and comprehensive a vocabulary development as possible.

REFERENCES

1. Funk, Wilfred and Lewis Norma. 30 Days to a More Powerful Vocabulary. Pocket Books, New York, 1942.
2. Johnson, Harry W. "The Hidden Consensus on Vocabulary Development" Problems, Programs, and Projects in College-Adult Reading, Eleventh Yearbook of the National Reading Conference. Milwaukee, 1962, pg. 106-107.
3. Karlin, Robert. "A Three-Pronged Attack on Vocabulary Development (Secondary)" in Forging Ahead in Reading, op. cit. pg. 89.

4. Karlin, Robert. op. cit. pg. 91.
5. Kingston, Albert J. "Vocabulary Development," Journal of Reading, 8 (March 1965), 265-266.
6. McDonald, Arthur S. "What's in a Word: Vocabulary and Its Development." EDL (Huntington Educational Development Laboratories), Reading Newsletter, XXIX, March 1963.
7. Pauk, Walter. How to Study in College, Houghton Mifflin Company, Boston, 1962.
8. Utsey, Jordon. "Special Materials To Aid in Vocabulary Development at the College Level" in Forging Ahead in Reading, J. Allen Figurel, editor. Volume 12, Part I, Proceedings of 12th Annual Convention, I.R.A., Newark, Delaware, 1968, pg. 102.

Motivating the College Reader
at
Moorpark College

MICHAEL STRIMPF

Moorpark College

Telling lies to the young is wrong
Proving to them that lies are true is wrong
Telling them that God is in his heaven
And all's well with the world is wrong
The young know what you mean
The young are people
Tell them that the difficulties can't be counted
And let them see with clarity these present times
Say obstacles exist: sorrow, hopes, hardship, happiness
The devil with it
Who never knew the price of happiness
Will not be happy
Forgive no error you recognize...increase
And afterwards our pupils will not forgive
In us
What we forgave

I define reading as having a love affair with a book,
touching it, dreaming with it, smelling it, holding it close.
How do you teach love making? Can it be taught?

I have visited so many reading centers in the United States
and have seen so many architecturally magnificent edifices and
have been dazzled by multitudinous pieces of glittering equip-
ment resplendent with knobs and calibrated dials and huge rooms
filled with boxes of reading materials and so on and so forth
ad infinitum. And I am constantly faced with these rooms, some-
times even with teachers in them or at least an occasional teach-
ing machine, but so often, where are the students? And I hear
teachers stating that if the kids didn't learn to read, to study,
to build vocabulary and study/skills and memory and concentration
techniques and skimming and outlining, then, in fact, why teach
them now? When I say that the students aren't there, I don't

necessarily mean physically there; I mean intellectually, emotionally. In the junior college, so many of our students can't be seen. True, there are bodies, but between them and the teacher is a barrier, a wall built of bricks and mortar and steel fashioned with the insidious hand of our grading system; each D and each F and each satisfactory or average adds another brick to that ever-rising bastion and gradually, it hides the human being crouched down inside it, a human being who ultimately looks like the bricks he hides behind, like the grades, the academic accomplishment that has become synonymous with him. And our words, our intellectual attempts to reach a brain and a soul that have been sterilized, only bounce off that wall, and most of us are satisfied that we have earned our salaries because we have made the intellectual attempt to reach our charges. Am I throwing stones? You bet I am, but at whom? Needless to say, such stones have been hurled before: The college professor says: "Such rawness in a pupil is a shame; lack of preparation in the high school is to blame." The high school teacher says: "Good heavens, what crudity; the boy's a fool; the fault, of course, is in the grammar school." The grammar school teacher says: "From such stupidity may I be spared; they send them up to me so unprepared." The primary teacher says: "Kindergarden blockhead; and they call that preparation, worse than none at all." The Kindergarten teacher says: "Such lack of training, never did I see; what kind of woman must the mother be." And the mother says: "Poor helpless child, he's not to blame; his father's people are all just the same." I well remember Jo Staunfield once saying: "We don't teach reading; we don't teach kids; we teach a kid!!!" Junior college and first grade have so much in common. At both levels, the students are starting out afresh; they are looking for a new start in life, a beginning which is the first day in the rest of their lives; and they look to us to provide them with that start, and so many of us assume, or want to believe that after twelve years of mediocrity, of anonymity, that they will automatically turn on to us. What egos we must have as teachers.

We cannot dismiss as trifling the fact that before one eats, he must have an appetite. He would be a fool if he ate only when the bell rang. He would be just as much an ass if he made love when the bell rang or went to the lavatory only when it was the proper time on his schedule. Here is what I am saying: you don't read unless there is an appetite for reading; you don't develop an appetite unless there is a reason for reading. Our job as instructors of reading is to stimulate appetites, to increase emotional salivation (and salvation), not to drill phonics and build vocabulary. Yes, the latter are important but only when the student desperately wants and needs that information. And then, only then, the knowledgeable, imaginative, humorous, sensitive, loving and

far-seeing teacher should teach these skills.

Well, what comes first? Let me describe to you the most successful, insidipidiously galastrophic reading program I have ever pursued or experienced. MINE!!! Most of our students are poor readers; most of them have no self concept that can be construed as positive; most of them look and act like failures; most see no reason for reading because they see their futures as dim without any need for reading. In addition to a reading skill test that is administered at the start of the semester, we also attempt to measure attitude, and the crux of our program lies in changing that attitude from negative to positive. If a student, regardless of past grades, feels that he is capable, nay, a genius in some area, then he will see a reason for reading, for the knowledge he gains from his books will enable him to be successful. Now, this is easier said than done, for I attempt to counteract twelve or more negative years of school, parents and friends, and, most important, of the subject himself. HOW?

Let me briefly list for you many of the activities in our reading program, all or most of which precede or coincide with the actual teaching of reading, a relatively simple process if the student sees a need for learning to read better.

First, I believe that the reading teacher should be male; most of our students are males; there are many reasons for their presence, but let it suffice to say that a great number of them have considered reading to be female oriented and inspired activity; they desperately want to meet with and identify with a masculine male who has become successful because of reading, and that is why I would rather have an average male elementary or junior college reading teacher than a superb female who perhaps expertly teaches phonics and syllabication but who emasculates all the young males she encounters. As the parody has it:

A woman is my teacher; I shall not pass; she leadeth me to the office; she guideth me in a straight path, for my grades sake. Yea, though I walk through the valley of the shadow of Knowledge, I learn not! She maketh me to show my ignorance before my fellow students; She anointeth my head with examples. My pen runneth over! Surely math and English will follow me all the days of my life, and I shall dwell in the eighth grade forever.

Second, I feel strongly that the classroom environment should be positively oriented. The walls in my reading center are adorned with signs, multicolored and festooned with ribbons and other paraphernalia: "You're beautiful; you're envied; you're inseguevius; you're unique;" and many others. A tape is constantly playing soft music; a sultry female voice every twenty seconds utters: "You're exciting...you're marvelous...you're stupendous...etc." All students each night before they

slip into the arms of Morpheus stand in front of a mirror and, after saying the phonetic alphabet aloud, state, looking themselves squarely in the eye, "You're remarkable," and then expire. Additionally, I call the parents of all my students and tell them what remarkable and stupendous students they have for children. Needless to say, I receive many unusual responses over the phone: screams, gasps, silence, marvelous epithets, but all the students come to class the next day saying the same thing, that, for the first time in their memory, their parents had touched them, said that some kook at school had called them marvelous, that their parents, from that day forth, changed their attitudes. For, no matter how persuasive I know I am, I fully realize that I need help, that the help should come from the people who, I hope, are still rather important in the student's life.

I might add here that if I were selecting teachers for a reading program, I would pick those who had themselves some difficulty in school, for they would best empathize with those students who are presently having difficulty.

Third, we have a ghetto near our school with many kids in the elementary school who cannot read or write. Each student in our reading class must put in at least one hour per week tutoring a non-reader at the elementary school. This is a multifaceted approach; it strengthens the ego of the college student who, perhaps for the first time in his life, is given the chance to help someone meaningfully; it helps the little one in the elementary school, and it enables our student to review some very basic material and learn it himself in order to teach it to the youngster in second or third grade. The results, as in all the other activities, are gratifying.

We have a dreaming center in the reading lab replete with stained glass window and easy chair, a place where students can lean back in total privacy and dream and dream of success they once had when they were children. Let's face it; the greatest successes of man have been achieved through his dreams; some of his most gigantic failures, through reality; I don't believe time is wasted simply because it cannot be evaluated on a chart or graph. I feel the same way about grades; if half of what we take to be true now will be proved false in ten years, what hypocrisy it is for a teacher to mark as absolutely right or wrong a true-false or multiple choice question; I give to all reading students A's if they make an effort to do the work and are present most of the time. Additionally, all their work is of a programmed nature and geared to their individual level of achievement. They take a final, but they are given the choice of three different types: a standard written one, an oral one in which the student and I sit down over coffee and discuss his progress during the semester, and a third: an opportunity for the student to create artistically evidence of his growth during the semester: a sculpture, an oil painting, a collage, slides,

showing behavioristically how he has metamorphosed; and I might add that this third type that I have described is the one most students choose.

We have no book reports; book reports kill love of books. We talk informally of what they have read: comics, Playboy, anything they like. Quite often, I read aloud in class and ask them to shut their eyes and be transported to another galaxy and recapture the jobs of the imagination. In truth, they are then becoming real readers, for one does not need eyes to read if reading is done with the heart.

To build vocabulary they have programmed EDL texts, but we also have Scrabble and Spill and Spell which the students play avidly. Learning can be enjoyable and fun. Our textbook is The Prophet in addition to several others, and we read it; they silently, and I aloud.

We stress the proper kind of diet, what foods to eat, when to eat them, how to prepare food properly. All students exercise actively at least fifteen minutes per week, most of the time with their teacher joining them: push-ups, sit-ups, squat-jumps, running. A good body means a good mind; exercise sharpens the brain.

I dress extravagantly: loud ties, strange shirts, attention getters. I believe that a teacher of remedial reading or writing must be someone who can attract the attention and keep the attention of the student; hopefully, he will attract it intellectually or emotionally, but the physical is the most apparent, and students love to be entertained.

I have never met a dummy, except perhaps on a teaching staff. An overwhelming number of students I have known are potential geniuses, if only they would realize their own self-worth. Let's not destroy kids by attempting to teach them beautiful things like reading when many of them are not ready to read in kindergarten or first grade; let's remember that we all mature at different times in different ways, that a child must not be branded with a Low or an Average simply because psychologically, intellectually, or emotionally he is not yet ready to learn. Once he has been stereotyped, he carries that scar with him for the rest of his life.

Once upon a semester, there lived a little old professor who was dear to his students. The lovable little man had much to offer his pupils and the world about him. He worked diligently. He was filled with kindness and good ideas, and he gave freely of these possessions.

Along with these exceptional gifts, the professor had one highly unusual characteristic: out of the middle of his head grew a bright red geranium; this geranium was more than a physical appendage. Indeed, it was part of his personality. The flower contributed to his brightness, both in its color and in its distinctiveness. Because it set him apart as an individual,

the little professor looked on the world with a fresh, vigorous perspective. From the beginning, people of various callings commented on the professor's unusual attribute. Some of the remarks were approving, but many were not. The clamor grew so great that one day the President of the University called for the professor. "Now Professor, let's be reasonable!" pleaded the President. "It might be satisfactory if you grew your own hat. Or even your own wig. But a geranium! Preposterous!"

"But President..." counter pleaded the little old professor. "This flower is me. I feel comfortable sprouting it. I can't keep it from growing and blossoming." A tear came into his eye. "I'm not harming anyone with my geranium, am I?" The President of the University shrugged his shoulders and referred the professor to a psychiatrist, who analyzed, "He really ought to be put away in an institution, different, of course, from the one he's in. Unless we can change him..."

The psychiatrist urged the President to appoint a committee to decide the fate of the little old professor. Representatives of the Village and University huddled in conference. At last, they arrived at a decision.

"Sorry," announced the Chairman. "You must change."

The village barber performed the pruning operation.

"Don't feel bad, Prof," he snipped. "Just pretend that you have a geranium on top of your head." And he cut away all the flower.

Without his geranium, the little professor withered. He could not work diligently. His kindness began to wilt away. His good ideas no longer flowered. He spent his days sitting and staring.

The village and university folk suddenly realized they had made a dreadful mistake. The President called another conference.

"We didn't destroy the flower," said the President sadly. "We destroyed our little old professor."

Then all the village and university folk decided that they would try to make amends by planting geraniums in their front yards to symbolize the professor's flower. Each citizen bedded one red geranium in the most prominent location he could find.

The President then turned to the people and said only one thing.

"Each of us has his own geranium," spoke the President softly. He paused "Each of us in his own way."

The professor looked up, and, for an instant, the people imagined that they saw a sparkle come into the little professor's eyes.

LET'S STOP THE PRUNING OPERATION AND START WATERING AND FERTILIZING ALL OF THOSE GERANIUMS OUT THERE THAT HAVE NEVER BEEN GIVEN THE OPPORTUNITY TO GROW.

Utilizing Known Factors To Increase Reading Speed and Flexibility

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The idea of reading thousands of words per minute is intriguing to us in an era of speed in which man is going to the moon, jets are flying several times faster than the speed of sound, and automobiles register 120 MPH on the speedometer. Breaking speed records of any type always makes interesting news. Unfortunately, much of what we read about "speed reading" is misleading. The present confusion began about a decade ago.

Around 1960, newspapers and magazines began out-doing one another with sensational reports of people learning to read at fantastic rates of thousands of words per minute. Undoubtedly, the impact of the Evelyn Wood Reading Dynamics Institute has been as strong an influence on those of us teaching reading as Flesch's *Why Johnny Can't Read* (8) was in the 1950's. Influenced by Wood's claim that a "breakthrough" in reading had been found, industries instigated rapid reading courses for their executives. Politicians such as Senator Proxmire of Wisconsin and Senator Talmadge of Georgia claimed speed reading was equated with responsible citizenship. (They were authorities, having completed an Evelyn Wood course.) President Kennedy, who reportedly read 1200 words per minute, was linked with speed reading courses being offered. Books, articles, and gadgets purporting to develop speed flooded the market. In a 1962 article "Rapid Reading: Uses and Abuses," Arthur Heilman (10) claims there were two unusual phenomena during Kennedy's administration: fallout shelters and speed reading. The irony is that none of the fallout shelters Heilman examined had any space for books. The emphasis was being placed on how fast one could read, not on what one was reading or how well.

Professional educators were also impressed by Evelyn Wood's claims. A prime example is Russell Stauffer (16), Director of

the Reading-Study Center at the University of Delaware, who was instrumental in appointing Evelyn Wood an assistant professor in the School of Education so that she could train teachers, graduates, and under-graduate students in her methods.

With this academic acceptance the reading camp was immediately divided. Disagreements began and still continue regarding the definition of speed reading, methods for evaluating comprehension, machines versus non-machines in teaching reading, adequacies of eye movement photography, eye movement and eye span training, and even the legality of the speed reading claims in advertising. Spache (16) and Ehrlich (7), among many others, took Stauffer and Wood to task for their claims. Liddle (12), in his doctoral dissertation of the Wood Reading Dynamics Method, found that the students who were taught the Woodian way did increase their rate but "an analysis of the data...does not substantiate the claim that exceptional rates are obtained without a loss in comprehension."

This paper is not going to discuss the history of the "speed reading" controversy but for those interested, a fairly thorough coverage of it can be found in Allen Berger's (4) "Speed Reading: Is the Present Emphasis Desirable?" and in Paul Witty's (18) "Rate of Reading--A Crucial Issue." Both articles cover the topic rather well, citing pro and con arguments. In addition, Berger's (3) Speed Reading: An Annotated Bibliography provides coverage of the topic up to 1967.

Known Factors About Speed and Flexibility

Researchers do agree on at least one point: it is possible to increase reading rates. To what degree depends on the individual's intelligence, practice and type of training. The research of Jack Holmes and Harry Singer (6) (11) of the University of California reveals that while there are many unknown factors contributing to the development of reading speed and power, there are seven known factors. Of those, the factors most important to gaining speed are in order of importance: word discrimination, word sense and eye span; eye span contributing only five per cent. Those factors most important to gaining comprehension are in order of importance: vocabulary in context, intelligence, perception of verbal relations, and eye fixations; eye fixation factors contributing only four percent. There are still unknown factors involved in reading speed development, but until research determines what they are, we can at least base our instruction on the known factors. The rest of this paper will direct itself to the application of these known factors to two major areas vital to developing speed and flexibility in reading: vocabulary and comprehension training.

Flexible Vocabulary-Type Training

Since word discrimination, word sense and vocabulary in context are contributing factors for developing reading flexibility, proper training in these areas seems appropriate. The importance of word discrimination drills are obvious. A sentence which reads "The pilot changed his residence." could seem to read "The plot charged his residence." If such faulty discrimination occurs it obviously destroys comprehension and produces regression. Many students at the college level suffer from various levels of poor word discrimination. When they attempt to read faster their comprehension suffers not so much because they can't mentally comprehend at faster rates, but because they can't discriminate quickly enough for the correct perceptual images to be received.

There are several textbooks which provide helpful word discrimination drills. Miller's Increasing Reading Efficiency (14), Rausch and Weinstein's Mastering Reading Skills (15), and at the remedial level, Adams' Increasing Reading Speed (1) all contain assorted rapid word, phrase, and number recognition drills which develop the ability to discriminate more rapidly. Basically, drills of this type require that the student identify a designated word or number among several other words on a line which have the same basic shape or configuration such as the following example:

Directions: For each line, read the numbered word and then move your eyes swiftly across the page. Underline that word every time it appears on the line. Work rapidly. You will have only 25 seconds to finish all twenty items.

- | | | | | | |
|-------------|------------|---------|----------|----------|-------------|
| 1. interest | interested | intern | interest | intrigue | interesting |
| 2. piece | peace | price | prize | person | piece |
| 3. believe | behave | believe | before | belongs | behave |

Variations of this activity should involve drills in number recognition, synonym recognition and antonym recognition.

Other helpful drills are varied forms of rapid phrase recognition exercises that can be read both in a vertical column and from left to right as illustrated in the following examples.

Example 1:

Directions: Mark the phrase which contains the approximate meaning of the key phrase by the number.

- | | | | |
|---------------|-----------------------------|------------------------------|------------------|
| 1. an opinion | the result of
on the top | too near it
a belief held | frankly speaking |
|---------------|-----------------------------|------------------------------|------------------|

2. to be exposed	open to men to rise above	due to that during old age	to increase
3. sign of force	physics book powerful arm (etc.)	even so afraid to say	now and again

Example 2:

Directions: Mark the phrase break of day each time it appears in the following column. Try to finish in 15 seconds or less.

break of pace
breaking bread
break a leg
break of day
break of dawn
(etc.)

Such drills are actually more sophisticated extenuations of readiness type exercises often used in primary level reading workbooks. Such drills are easily prepared on stencils or ditto masters. They should be made available for students to use as often as possible and should be practiced under the pressure of time.

In addition, the well publicized tachistoscopic machines such as EDL's TACH-X, AVR's Eye Span Trainers, Craig Readers and others are useful in word and phrase discrimination development. However, the use of machines in developing reading flexibility is not a necessity. Berger's (2) findings (among others) in "Are Machines Needed to Increase Reading Rate?" are that "what can be done with machines can be done as well, if not better, without." However, there are always a few students who are motivated by machines or who can better understand principles of eye movement through machine demonstration.

The factor word sense covers much and implies flexibility in vocabulary usage. One method for achieving this flexibility in word sense is the personalized vocabulary card. The student, using 3 X 5 cards, prints the word he wants to learn on one side of the card and on the other side the phonetic spelling, the definition, synonyms, antonyms, word roots, and a sentence using the word. The student, depending on his ability, should be required to make and over-learn at least five to ten cards per week. He accumulates these so that he mixes in the new cards for one week with the others he has already made. At least once every two weeks the instructor should check all the students' cards by flashing them at the student for quick visual discrimination, and should request that he pronounce the word and give its definition. The advantage to this method is

that it allows the student to select words he personally doesn't know from any source and it requires that he meet with the instructor to correct his pronunciation, to check his responses and to reveal any other problems the student may have with the word.

Because not all students learn the same way or have the same problems, the instructor should also provide materials and drills in all five basic word attack skills: sight discrimination, structural clues, phonic clues, contextual clues, and dictionary usage. The student should be encouraged to work in any or all of these areas of vocabulary development he needs most, but the heaviest emphasis should be placed on vocabulary in context.

There are many excellent vocabulary textbooks available but it is highly doubtful that any one book would provide proper vocabulary training for every student in any given class. A book such as Brown's Programmed Vocabulary (5) requires the student to learn fourteen words which are said to contain prefix and root elements found in over 14,000 words from a desk dictionary. However, personal experience reveals many students cannot relate this knowledge very readily and that they often memorize for memory's sake and soon forget. Some books, such as Greene's Word Clues (9) are based on Latin and Greek roots. Many students can expand their word sense with these texts, but there are always some who find little relevance in memorizing words or word parts they never use. EDL's Word Clues (18) attempt to use context, roots, and dictionary entries on a programmed format. Again, for some students the appeal is great; for others, a different approach is needed. The personalized vocabulary cards help close this deficiency when a reading lab cannot provide numerous vocabulary texts for student use. But whatever the approach, quick word recognition and a flexible vocabulary are vital for increasing rate and should be an integral part of any speed reading course.

Flexible Comprehension Training

Despite the agreement of most educators that speed without comprehension is meaningless, there are many college reading courses paying lip-service to real comprehension. Some textbooks which claim to aid speed and comprehension are guilty of perpetrating the speed myth by providing the same type of comprehension exercises with each timed reading selection. Soon the student begins to read to answer certain expected questions and a spurious comprehension gain is felt. In too many of these books, reading comprehension tests are mostly objective-type exercises. In addition, the questions are often nothing but literal re-call questions which students can correctly answer without having read the article.

In order to help a student develop flexibility in his reading speed he should be given a variety of comprehension quizzes which deal with literal, critical and aesthetic levels of comprehension. Literal comprehension involves the finding, understanding and recalling of main ideas, the ability to follow directions, and an awareness of a sequence of events. It is the most fundamental level of comprehension. Critical comprehension involves the ability to discriminate between fact and opinion, to recognize bias and propaganda, to recognize an author's inference and to make valid judgments. It requires using past experience to evaluate what is read. Aesthetic comprehension is the awareness of beauty, style, humor, satire, irony and quality in writing. It is a personal, affective comprehension. All too often, speed reading texts as well as many teachers operate mostly at the literal level with some training given to critical levels of understanding and virtually no training in aesthetic comprehension. However, all levels of comprehension should be treated equally if true reading flexibility is desired.

Developing Literal Comprehension

To help the student develop his literal comprehension, instruction should be provided in finding the thesis of the material being read, in noting how the author proves or supports his ideas, and in an awareness of the variety of paragraph patterns used to develop his ideas such as: the use of illustration and example, comparison and contrast, definition of terms, division and classification, the use of factual details, and combinations of these methods. Helping the student to see patterns in writing can in turn speed up his reading comprehension and develop his appreciation of style and technique.

Skimming and scanning drills are essential and helpful to developing reading flexibility in the literal comprehension area. Maxwell (13) reports that the best technique for skimming and scanning practice is to reduce the amount of time the student is permitted to read the selection so that he is forced to try shortcuts. In addition, she reports that rapid scanning speeds among students produce fewer errors than among those who work slowly. Maxwell feels that instructors must do more than make suggestions and provide a few practice sessions to improve skimming and scanning techniques.

Frequent as well as a variety of drills are necessary to develop true flexible rates. There is no real need for special equipment or texts. Indexes, glossaries, and tables of content from the student's textbooks can be used for drill practices. Dictionaries and encyclopedias can be used. Xeroxed pages from the telephone directory, newspaper ads, television programming and various news stories make excellent drill material. Requir-

ing the student to first read the questions which usually follow a timed reading selection and then to skim the article for the answers is also a helpful training device. Questions asked before students read help set purposes for reading. They direct students to relationships they should look for, thus teaching the student rather than just testing him. Still another method is to request that a student, after checking his answers to a comprehension quiz, always skim back through the article to locate the place where the correct answer appears to any question missed. All of these drills should be done under a severe time pressure.

In addition to skimming and scanning drills, students need to be taught to ask their instructors how to approach their reading assignments. For instance, when a student is told to read Chapter Six from his history text, the student should legitimately be able to ask his instructor questions such as these:

1. Should I read rapidly or carefully?
2. What is the main thing I should get from the chapter?
3. How does this chapter relate to what has been covered so far?
4. Will I be tested on reading? If so, what type test?

When students begin asking such questions of their subject matter instructors, both student and instructor will be utilizing study techniques advocated in practically all how-to-read books.

Since good comprehension is based on the purpose for reading, the student should be shown how to preview, survey or focus his attention on an assigned reading in order to establish purposes for reading. There have been many SQ3R type mnemonic study devices developed (SQ4R, PQ3R, PQ4R, PQ4RST, PQ4RST, etc.) but they all basically advocate that the student preview the material to be read before attempting to read carefully. Practice sessions using previewing or focusing techniques on chapters from actual textbooks or essays are vital to developing flexibility. Since an author's thesis is usually expressed in the opening paragraphs, and since topic sentences are usually the first sentence in a paragraph, it is imperative to show students how a quick reading of these areas in a chapter or an essay can give a very clear picture of general content. In fact, such previewing is often all the reading a student may need, depending on the purpose of the assigned readings.

Developing Critical Comprehension

Once a student can understand clearly at the literal level, he then needs practice in critically evaluating the author's purposes and in challenging the validity of the author's statements. Drill work in discriminating fact as opposed to opinion is essential. The student should be asked the following questions

about some materials he reads:

1. What is the thesis of the article just read?
2. Do you agree with the thesis? Why?
3. Is this the opinion you had on the subject before reading the article?
4. Where did you get your present opinion?
5. What would it take to change your opinion?
6. Was the article worth reading?
7. What is worth remembering?

Questions such as these do not lend themselves to answer keys and they are often omitted from reading texts. But they are vital questions if true meaning is to be gleaned from reading and such questions need to be incorporated in a reading program aimed at developing flexibility.

In addition, a student's critical comprehension can be enhanced when he is not just told but shown that everything that appears in print is not always accurate or true. Have students compare how two history texts deal with the same subject. Have students compare two different movie or television reviews from newspapers and magazines. Have students carefully examine certain advertising claims for their cleverness, accuracy, implication, and word selection. A good visual lesson on purpose in reading can be taught by showing two advertisements for the same brand automobile from a magazine such as Playboy and Time. The use of bikini clad models draped around a super sports model Ford in a Playboy advertisement is a startling contrast to the use of a Ford station wagon loaded with children and dogs in a Time advertisement. The implications are obvious. Many students have an adequate background for such critical comprehension but they often fail to realize they have it or fail to use it if they have.

Developing Aesthetic Comprehension

Aesthetic comprehension is a natural outgrowth of literal and critical comprehension. It is a personal reaction to what has been read and reflects tastes and experiences. Unfortunately, students are seldom taught that their personal reactions and tastes are tied in with comprehension. They are more often taught that comprehension is "remembering what is read." But remembering what is read is often easier when it can be made personally meaningful and relevant—not always an easy task.

Aesthetic comprehension is usually left to the English teacher's domain. It is the English instructor who is supposed to be teaching appreciation of literature, awareness of style, an author's use of humor, irony, satire and so on. It is unfor-

fortunate that while these aspects of literature are being taught they are sometimes taught at the expense of expanding a student's aesthetic comprehension. Caught up in the terminology and their expertise, English instructors often discourage rather than encourage reading imaginative literature.

An example which reflects the lack in clarifying and developing thorough comprehension is taken from a college freshman English teacher's test on Shakespeare's Othello. Here are three typical questions:

1. In what folio edition does Othello first appear?
2. Who is Iago's mother?
3. How old is Othello?

There is nothing wrong with these questions. What is wrong is that those are the only kinds of questions on the test. They deal with only one level of comprehension. The student is not asked for his feelings about Othello, or if he has ever known someone like Iago, or even if he enjoyed reading the play. Thus, aesthetic or affective comprehension is stifled by tests which require a sponge-like absorption of every detail.

Training in reading imaginative literature (poetry, short stories, plays, novels) is just as vital as training in reading expository writing. Yet a gleaning of many contemporary speed reading texts shows an absence of such material. Most workbooks and texts restrict their reading selections to materials which lend themselves to multiple-choice or true-false questions, thus enabling the reader to check his answers in an answer key, plot his score on a chart and then start all over again doing the same thing. Inductively, these books teach a narrow view of comprehension.

Using fictional literature in a speed reading text would mean the following type questions would be necessary:

1. Did you enjoy the story? Why?
2. What do the characters represent?
3. Why do the characters act as they do?
4. What is the conflict between characters?
5. Discuss the writing techniques the author uses.
6. What images are particularly well done?

Incidentally, answering such questions after reading thousands of words per minute would indeed be worthy of a news article.

Oral discussion, both formal and informal, is another good means for developing student comprehension powers. Allowing students to exchange viewpoints regarding an assigned article or a timed reading selection from his text is recommended. Such activity enhances a reading assignment by taking its importance beyond a comprehension quiz. It allows a healthy interchange of ideas and permits students to actually use and become involved

in what they read. It also shows students how differently other people react to the same reading material, an important lesson in comprehension.

Summary and Recommendations

Accepting the fact that reading rates can be increased, and accepting some known factors which research has shown to contribute most to increasing reading flexibility, the following recommendations are offered:

1. Flexible vocabulary-type training is essential to developing increased reading rates. Some valuable vocabulary activities are the use of:
 - a. rapid word, phrase and number discrimination drills,
 - b. personalized vocabulary card drills,
 - c. word context drills,
 - d. vocabulary textbooks designed to develop all word attack skills.
2. Flexible comprehension training which develops literal, critical and aesthetic levels of comprehension is also essential. Such training should include:
 - a. exercises in developing literal comprehension or the ability to identify main ideas, organizational patterns and pertinent facts;
 - b. extensive and varying exercises in skimming and scanning for literal comprehension as well as rate flexibility;
 - c. exercises in study-reading which would include methods for previewing, surveying or focusing to determine a purpose for reading;
 - d. exercises in developing critical comprehension so that the student recognizes bias and propaganda, recognizes the difference between fact and opinion, and learns not to believe everything he reads;
 - e. exercises in developing aesthetic comprehension or the student's sensitivity to levels of quality in writing and enjoyment in reading;
 - f. exercises in oral discussion of selected materials.

Until more valid research is done regarding man's ability to read thousands of words per minute, we can at least provide instruction based on the known factors.

To quote Bacon, "Some books are to be tasted, others to be swallowed, and some few to be chewed and digested." Our jobs as reading instructors are to help students learn to read and then help them to read to learn. We need to help them know when and how to taste, when and how to swallow, and when and how to

chew and digest what they read. If we can do this, we will be providing students with an awareness that there is no such thing as a reading rate but many reading rates of comprehension all based on the need and purpose for reading. But let us be careful that in our efforts for speed that we do not, as did the old fisherman in Hemingway's The Old Man and the Sea, end by going too far out.

REFERENCES

1. Adams, W. Royce. Increasing Reading Speed. Macmillan, 1969.
2. Berger, Allen. "Are Machines Needed to Increase Reading Rate?" Educational Technology, August, 1969, 59-60.
3. Berger, Allen. Speed Reading, An Annotated Bibliography. Newark, Delaware: International Reading Association, 1967.
4. Berger, Allen. "Speed Reading: Is the Present Emphasis Desirable?" Current Issues in Reading. Proceedings of the Thirteenth Annual Convention, International Reading Association, Part 2, 1969, 45-70.
5. Brown, James I. Programmed Vocabulary. Appleton-Century-Crofts, 1964.
6. Brown, James I. "The Look 20-Day Course in Quick Reading: Part II," Look, February, 1970, 62-68.
7. Erhlich, Eugene. "Opinions Differ on Speed Reading," NEA Journal, 52 (April, 1963), 44, 46.
8. Flesch, Rudolph T. Why Johnny Can't Read. Harper, 1955.
9. Greene, Amsel. Word Clues. Harper & Rowe, 1962.
10. Heilman, Arthur. "Rapid Reading: Uses and Abuses," Journal of Developmental Reading, (Spring 1962) 5; 157-163.
11. Holmes, Jack A. "The Substrata-Factor Theory of Reading: Some Experimental Evidence," in J. Allen Figurel (ed.), New Frontiers in Reading, Vol. 5, International Reading Association Conference Proceedings, New York, Scholastic Magazines, 1960, 115-121.
12. Liddle, William. "An Initial Investigation of the Wood Reading Dynamics Method," doctoral dissertation, University of Delaware, 1965.

13. Maxwell, Martha J. "Assessing Skimming and Learning Skills Improvement," The Psychology of Reading Behavior. Eighteenth Yearbook of the National Reading Conference, 1969, 229-233.
14. Miller, Lyle L. Increasing Reading Efficiency, 3rd edition. Holt, Rinehart and Winston, Inc., 1970.
15. Rausch, Sidney J. and Alfred B. Weinstein. Mastering Reading Skills, American Book Company, 1968.
16. Spache, George D. "Is This a Breakthrough in Reading?" Reading Teacher, 15 (January 1962), 259-263.
17. Stauffer, Russell G. "Speed Reading at the University of Delaware." Proceedings of the 44th Annual Education Conference, 10, University of Delaware, 1962, 3-9.
18. Taylor, Stanford, et. al. Word Clues (Books J, K, L, M), Educational Development Laboratories, 1963.
19. Witty, Paul. "Rate of Reading--A Crucial Issue," Journal of Reading, November 1969, 102-ff.

Using the Visual-Auditory-Kinesthetic Spelling Technique To Solve Severe Spelling Problems

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There is sufficient ground to assert that colleges and universities are filled with students who are deficient in various degrees in the art of spelling. Concomitantly, most of these inefficient spellers are also plagued by a variety of reading deficiencies. This vicious circle is evidenced by Furness (3) who reports correlation coefficients between reading and spelling ranging from .80 to .85 and by Spache (7), who reports a correlation of .60 between spelling and vocabulary. Plessas and Petty (6) as well as Staiger (8) emphasize that good readers are most often good spellers and poor readers are invariably poor spellers. With the exception of four among hundreds of college students over the past three years, the writer can attest to these findings. Inefficient spelling skills then do not dwell in isolation. Instead, poor readers in addition to having reading deficiencies will also have spelling deficiencies.

What are some of the sources known to contribute to inefficient spelling? Cole (1), Marksheffel (5) and others suggest that spelling errors can be attributed to (first) an individual's attitude toward spelling, (second) the difficulties inherent in the English language, and (third) inappropriate methods in teaching spelling. While little or nothing at present can be done about the second attribute, the third statement appears of particular interest, for the teaching of spelling does definitely influence if not to some extent determine the individual's attitude toward spelling. College students are not inefficient spellers because they enter college or university, but rather are afflicted with spelling disorders of long standing prior to transferring from high school to college. Grace M. Fernald (2) refers to student failure to spell as being "due to bad habits forced upon the child by the school in the attempt to teach him to spell."

Without belaboring existing weaknesses in the teaching of spelling and without afflicting and inflicting additional failure and emotional disturbance to and within the college student, it suffices that he has been negatively conditioned and that, in part, he is psychologically the product of it. In most cases he is aware of this condition by professing that he has not learned to spell in school, that he regards himself as a failure in this subject, and that he has given up hope to learn what he believes being the impossible. In some students the prolonged history of spelling failure resulted in the "I don't care" attitude of apparent indifference to any and all conventional spelling of English words. In other students, repeated failure provoked them to retort to active and/or passive resistance to write words incorrectly over and over again. A few, nevertheless, struggle on incessantly to memorizing letter names in sequential order which, through some sort of magic predilection, are supposed to convert themselves into meaningful English words.

This predicament and sometimes distress of physical and psychological nature appears to be eminently pronounced by silent defiance to opposing views to improving spelling in spite of. Yet, it must be recorded, that personal barricades of indifference, resistance, and defiance diminish gradually when spelling instruction begins with the student's tentative instructional level and, then, proceeds by using a multi-media approach in accordance with his own capability.

While it is beyond the scope of this paper to discuss how to ascertain students' instructional spelling levels, it can be stated that without such knowledge, teaching spelling becomes a hazardous enterprise equal to a blind man leading the blind. Effective instruction through application of the multi-media approach is also dependent upon cognition of students' tentative instructional spelling levels. (5)

Why utilize a multi-media approach in teaching college students to spell? It is with great reluctance on my part to repeat over and over again that educational institutions, in spite of what is known about and of individual psychology, perniciously adhere to antiquated methods of learning; i.e., one specific technique by which all students must be taught and are forced to learn. Yet, the clamor is widely heard that not all students learn to spell and that all students are different. Maybe these are just blatant cliches, meaningless otherwise. Perhaps, human unawareness plus the temptation of easy applicable and workable mechanical instruments and materials help to ignore the well-known psychological maxim that no two individuals learn the same word to spell in the same way. Consequently, well trained and efficient college and high school instructors know that there is neither "one-technique-for-all" in learning to spell nor a "panacea" method to remediate and ultimately to prevent the common spelling quandary.

What is a multi-media approach in teaching college students with spelling problems how to spell? The Visual - Auditory - Kinesthetic methods or technique, known as V.A.K., is such a multi-media approach which does assist college students in correcting faulty spelling and simultaneously leads students to work independently in the acquisition of new words. (9) Holmes' Substrata-Factor theory indicates that at the high school level, approximately two-thirds of the students are predominantly visually minded, somewhat less than one-third will learn better through their auditory senses, and a small percentage, mostly boys, must rely heavily upon the proprioceptive or kinesthetic senses as their most efficient input channel. Therefore it can be concluded that functional instruction in learning to spell must be accountable to a multi-media approach such as the Visual-Auditory-Kinesthetic approach. In part, this technique is reflected in the literature by the Fernald-Keller Tracing Method, the Monroe Sounding-Tracing Method, the Gates Visual Approach, and the Horn-Ashbaugh Visual Procedures. In addition, other numerous clinical modifications of the Visual-Auditory-Kinesthetic-Tactile technique are reported in the literature, such as the Cooper Method, the Hegge-Kirk-Kirk Method, The Gillingham-Stillman Method, and the McGinnis, Kleffner, and Goldstein Association Method.

After deliberating on only the bare essentials implicit in educational and psychological theories, the question of how to make the multi-media of the Visual-Auditory-Kinesthetic technique instructional for the teacher and functional for the student deserves to be answered.

As an electrician must know all tools and the various jobs they can perform, so the college reading instructor and the high school reading teacher must know the tools and their various jobs they can perform in spelling diagnosis and remediation.

Visual denotes visual discrimination characterizing an experience that belongs to the sense of vision by which differences and likenesses in complex visual patterns and spatial sequences of given symbols are seen. Auditory denotes auditory discrimination pertaining to an experience that belongs to the sense of hearing by which similar sounds are heard and temporal sequences of sounds distinguished. Kinesthetic denotes the sense that yields knowledge of movements in terms of lip and throat movements in recalling sounds as well as in terms of finger-hand movements in recalling tracing the word.

None of these media exist in isolation or separation while attempting to learn to spell. It may also be extremely difficult to discern when and where the visual act ends, the auditory act begins, and to what extent visual and auditory senses are participating and, perhaps, supporting kinesthetic movements. Each sensory act is related to the other and all three are interrelated in the sense to enable college students and all other individuals to write rapidly, easily, and correctly whatever

they wish to communicate to themselves and to others.

It may be suggested at this point that a college student may be capable of recognizing and attaching meaning to a word he reads, but may be quite unable to spell the same word correctly. His inability to spell attests to the fact that mere recognition of a word suffices in reading but not in spelling. To spell the word, the student must perceive every detail of the word form in order to reproduce each symbol as to place, sequence, and form. Visual discrimination beyond superficial recognition is at work. The complex pattern of the word and the spatial orientation of the symbols require meticulous inspection from left to right. This process involves studying the word precisely for visual recall; that is, recall after the stimulus has been removed. However, at this stage of perception not all students do profit in equal measure from visual discrimination. Therefore, students visual image of the word in print or script may be either vague, or blurred, or nonexistent. Auditory discrimination then by which the word is sounded out needs to support or assist the visual act. Pronouncing and sometimes enunciating the whole word, its syllables, and then the whole word again helps to establish auditory imagery. By means of this auditory function an individual can more distinctively recall the word or the letter symbols in terms of the respective sounds. In the case of the kinesthetic individual, movement is employed. Many a time, when the word has been properly and sufficiently pronounced, lip and throat movements may aid the kinesthetic inclined student to think the word in terms of the acquired sound movements. Should the lip and throat movements fail to either produce or assist in the clear kinesthetic image, hand movement or tracing must be applied. Hand movement is performed with two fingers, the forefinger and the middle finger, which contact the word. Thus, the visual-auditory-kinesthetic technique allows any student to study the word through stimulation of one or more of the senses in accordance with his individual needs. The visual perceptive college student will picture the word as he has not only recognized but inspected it. The auditory perceptive college student, while his visual word image is either incomplete or nonexistent, will pronounce the word to himself and then recall the auditory imagery of the word in order to write it correctly. The predominantly kinesthetic perceptive college student needs to retort to thinking in terms of lip, throat, or finger movements in order to reproduce the letter sequence within a word in every detail.

Most college students will greatly benefit by combining visual, auditory, and kinesthetic functions in learning to spell. The combination of all three results in the Visual-Auditory-Kinesthetic Technique of teaching spelling. The Visual-Auditory-Kinesthetic Technique does permit each college student to develop independently this type of word image which will give him all the details of the word he is attempting to learn.

In spelling, all the details of a word must be perceived and then reproduced correctly without seeing or hearing the stimulus. The whole word is either correct or incorrect; no partial correctness is acceptable at all.

To let college students partake in and become knowledgeable recipients of the multi-media approach, the Visual-Auditory-Kinesthetic Technique must be taught to them in such a manner that they become skillful masters in using independently this technique. Sheer informational memorization of each step is useless in time and effort. Each step must be understood to the extent that the student can intelligently explain and relate each step to the succeeding one, and, in the final analysis, apply each step within the entire technique in his attempt in learning to spell. College students need to learn and to know the following six steps:

1. Inspect the whole word to be learned.
2. Pronounce or enunciate the whole word.
3. Write the whole word while pronouncing each syllable.
4. Dot the "i's" and cross the "t's" in the left to right sequence.
5. Pronounce each syllable and underline it.
6. Pronounce the whole word again.

In conclusion, these six steps of the Visual-Auditory-Kinesthetic Technique, while being in agreement with sound educational procedures and psychological theories, will assure that each student can learn to spell individually and independently. Individually, because he can select the approach by which he learns most easily and has a chance to learn it in his own way. Independently, because the student knows sequence and content of each step and of the technique as a whole and can, therefore, apply the Visual-Auditory-Kinesthetic Technique wherever and whenever he needs it.

REFERENCES

1. Cole, Luella. The Elementary School. New York: Holt, Rinehart, and Winston, Inc., 1947, pp. 223-249.
2. Fernald, Grace M. Remedial Techniques in the Basic School Subjects. New York: McGraw-Hill Book Co., 1943, p. 183.
3. Furness, Dan L. "Should Reading and Spelling be Taught Separately?" Clearing House 31:67-70, 1956.
4. Holmes, Jack A. "Factors Underlying Major Reading Disabilities at the College Level." Genetic Psychology Monograph 49:3-95, 1954.

5. Marksheffel, Ned D. Better Reading in the Secondary School. New York: The Ronald Press Co., 1966, pp. 131-150.
6. Plessas G.P. and W. Petty. "The Spelling Plight of the Poor Reader." Elementary English 39:463-465, 1962.
7. Spache, George. "Spelling Disability Correlates. I. Factors Probably Causal in Spelling Disability." Journal of Educational Research 34:561-586, 1941.
8. Staiger, R.C. "The Spelling Problem in High School." Education 76:280-285, 1956.
9. Taschow, Horst G. "Reading Improvement in Mathematics." Reading Improvement Vol. 6, No. 3 (Winter) 1969, p. 64.

A Clinical Approach to Help Remedial College Readers

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John G. comes to you for help. He is 18 years old, has always had trouble in school. He is reading at about a 4th grade level, cannot adequately pronounce words and has considerable difficulty understanding what the textbook says even when someone reads it to him. His family did a lot of moving around when he was in second and third grade and he never really had a good solid background. However, in elementary and high school, teachers moved him along because he was a nice guy and didn't bother anybody.

John is intelligent and realizes that he must learn to read better if he is to be successful. He has been in reading classes in high school and they have failed to help him. He has a very poor self-image. He feels that he is a failure and cannot learn. Down deep he hopes he is wrong; that is why he came to you. However, if he fails to learn to read now, it may damage his self concept very severely. What kind of program can the junior college offer to help this person?

We are all aware of the fact that as our Junior College population doubles, community college instructors are faced with the reality that more and more students like John are entering college with inadequate reading skills, unable to function in the content areas.

Many colleges as well as my own offer remedial classes for entering freshmen whose ACT scores fall below the 40% ile. Class sizes range from 20 to 30 students, the range of reading ability according to the Iowa Silent Reading Test, is from the 50% ile to the 0% ile. The question I would like to pose here is how do you meet the needs of all these students within the same class period of 50 minutes per day, three days each week? To be very honest, you really don't. That mythical average might reap the benefit of such an arrangement—but what about the students who fall in the lower percentile group? Are we helping them? Can you help them in the large group arrangement?

I think not.

How can we prevent these students from turning the "Open Door" into a "Revolving Door?" We could and should set up a clinic type program.

There is no one criterion as to what constitutes a reading clinic. An effective clinic would include the services of a psychiatrist, psychologist, physician, neurologist, sociologist, optometrist, speech therapist, guidance counselors, and remedial teachers.

The clinic should be physically inviting, with pleasing color scheme for draperies, walls, and furniture. The ideal situation is one in which rooms are designed with open shelves for materials, comfortable desks which can be moved for flexible grouping and good lighting. It should be well equipped with filmstrip viewers (table type), a film projector and screen, tape recorders, record players, other audio and visual equipment, and a chalkboard. The clinic should have adequate space for conference rooms, reading rooms, room for individual testing, counseling, tutoring, and small group instructions.

Diagnosis

The first important step is to diagnose individually the students that were identified as possible remedial readers with severe disabilities.

The major problem in identifying the retarded reader is to properly assess his capacity for learning to read. Obviously, he can score no better on a group intelligence test requiring reading than he can on a reading achievement test. Yet, nonverbal aspects of intelligence tests are known to have relatively low relationship to reading achievement. Such tests as the Stanford-Binet Tests of Intelligence Scale, or the Wechsler-Bellevue Intelligence Scale, or WAIS, are among the most dependable. Where neither the time nor trained examiners are available, reading capacity is often estimated by listening-comprehension tests. Students whose reading scores are significantly lower than their listening scores are most likely to profit from remedial instruction. Those who rank low on both tests probably should be referred for individual psychological examinations.

In medical circles the term "diagnostic" usually implies that art or act of recognizing a disease from its symptoms. The physician for example, listens carefully to the patient's recital of his ailments. The doctor asks questions to aid him in distinguishing one possible cause from another. He then determines the necessity for specific clinical tests to provide further information about the patient's condition. When the results of his observations, systematic questioning, and laboratory tests are combined with his previous medical training

and practical experience, the physician makes a differential diagnosis which enables him to treat the existing illness. In this setting, diagnosis is the process of exploring characteristics and causes of a disease or difficulty in functioning. It is also the interpretation of findings for the purpose of treating the patient's condition and making a prognosis for his recovery.

Because reading is a complex process dependent upon many factors, the clinicians need a similar approach in their study of retarded readers. Knowing that behavior is caused, they must: 1) recognize symptoms of difficulty; 2) know which questions to ask in order to distinguish one problem from another; 3) select appropriate procedures and measures to supply relevant information; 4) understand and interpret the meanings and interrelationships of their findings; and 5) make a differential diagnosis. Furthermore, in the educational setting, the diagnosis will indicate by whom the student should be treated, and how he can be helped most efficiently.

A comprehensive diagnostic program usually includes two approaches—a thorough study of the student's present status and an intensive search for possible causes of his difficulty. To determine current conditions, the diagnostician appraises the student's reading strengths and weaknesses and seeks information about any characteristics within the student's immediate environment and personal development that may need to be corrected before special instruction in reading can be undertaken successfully. The search for causes frequently entails a case-study approach systematically explores each area of the student's development in order to ascertain major and contributing factors to his lack of progress in reading. In his search for causal factors, the diagnostician may require the services of specialists, such as a psychologist, a physician, a psychiatrist, a counselor, a neurologist, or a vision specialist. This multidisciplinary approach in the evaluation of reading difficulties should result in a clearer understanding of their causes.

In studying a retarded reader in the clinic, the diagnostician must identify the exact nature of the student's limitations in reading. Failure on the part of the student to develop certain skills and abilities as well as any tendency to over-emphasize some skills to the exclusion of others or to use faulty approaches, may handicap his entire reading growth. Deficiencies in comprehension, word identification, oral reading, study skills, rate of comprehension, and orientation are common defects among disabled readers. Their presence in isolation or in combination must be determined before effective instructional programs can be designed.

The tools for identifying and diagnosing the remedial reader are varied in scope and intensity. For example, we may classify them in the following categories:

I. Intelligence Test

- A. Revised Stanford-Binet Scale by L. M. Terman and H. A. Merrill, Houghton-Mifflin Co., Ages 2 - maturity. Two forms: 30 - 90 minutes. Individual test.
- B. Wechsler-Bellevue Intelligence Scale by D. Wechsler. Psychological Corporation, Ages 10 - 70. Verbal and performance scores. Two forms. Time: 40 - 60 minutes. Individual test.
- C. Slossen Intelligence Test for children and adults. One form 10 - 30 minutes. Individual test. This test has a high correlation with Stanford-Binet.
- D. Brown-Carlson Listening Comprehension Test by J. I. Brown and G. R. Carlson. World Book Co. Grades 9 - 13. Two forms. Time about 50 minutes. Immediate recall, following directions, recognizing transitions, word meanings, lecture comprehension.

II. Physical and Sensory Test

- A. Audiometer by Audivox, Inc. Used to secure accurate measure of hearing loss.
- B. Visual Screening
 1. Keystone Visual-Survey by the Keystone View Co.
 2. Ortho-Rater by Bausch and Lomb Optical Co. These are tests of visual efficiency at far and near distance.
 3. The Reading Eye, or a portable camera designed to photograph eye movements in reading.

III. Standardize Reading Test

A. Oral Reading Test:

One of the most informative means of diagnosing a student's word perception skills is the oral reading test.

1. Gray Oral Reading Test by William S. Gray. Bobbs-Merrill Company, Inc. The Gray Oral Reading Tests

were designed to measure growth in one of the several strands of reading. Therefore they are useful companions to silent reading tests. The two major functions of the Gray Oral Reading Test are: first, to provide an objective measure of growth in oral reading from early first grade to college; and second, to aid in the diagnosis of oral reading difficulties. There are four forms: A - B - C - D.

2. The Diagnostic Reading Scales by George D. Spache, California Test Bureau. Grade 1 - 8. Approximate time - 45 minutes. The Diagnostic Reading Scales are a series of integrated tests, developed to provide standardized evaluation of oral and silent reading skills and of auditory comprehension. The tests are individually administered, and may be used to determine the proficiency of normal and retarded readers at elementary school levels and of retarded readers in junior and senior high school age groups.

The test battery comprises three Word Recognition Lists, twenty-two Reading passages of graduated difficulty, and six supplement Phonics Tests.

3. Gilmore Oral Reading Test by J. V. Gilmore. World Book Co. Grade 1 - 8. Two forms. Time: 15-20 minutes. Comprehension, rate and accuracy of oral reading. Analysis of errors used to diagnose reading difficulties.

- B. Silent Reading Test: (Group Test - can be used individually) (Do item by check)

A diagnostic silent reading test is designed to give information about a number of reading skills. A diagnostic test will include a number of subtests—perhaps in rate, vocabulary, dictionary usage, use of reference materials, ability to recall detail, to identify central thought, to understand science or social studies material, etc.

1. California Reading Test by E. W. Tiegs and W. W. Clark. California Test Bureau. Grades 1-4, 5, 4-6, 7-9, 9-14. Four forms. Time 35-50 minutes.
2. Stanford Achievement Test: Reading by T. L. Kelly, G. M. Ruch and L. M. Terman. World Book

Co. Grades 2-3, 4-6, 7-9. Three (Primary) to five forms. Time: 30-40 minutes. Paragraph and word meanings.

3. SRA Reading Record by Guy T. Buswell. Science Research Associates. Measures ten basic reading skills: rate of reading, reading comprehension, paragraph meaning, directory reading, map-table-graph reading, index reading, sentence meaning, technical vocabulary and general vocabulary. For use with junior and senior high school, and college population. It is self-scoring. Percentile score may be charted on the profile blank for ready interpretation.

IV. Projective Methods

Projective methods furnish keys to some of the deeper determinants of reading development. They may give glimpses of potential mental ability, or a personality structure capable either of preventing or of prompting reading achievement, and of personal relationships that are influencing the individual's behavior for the better or for the worse. Projective methods are primarily concerned with the psychodynamics of personality. This is the unique contribution of projective techniques to the diagnosis of reading difficulties.

The special feature of projective methods is that they present an unstructured situation, *i.e.* a situation for which the individual has no ready-made or habitual response.

1) The most technical projective technique is the Rorschach by H. Rorschach, 1942; 2) The Informal projective method would be the Incomplete Sentence technique. Examples are: 1. Today I feel _____. 2. When I have to read, I _____. 3. I get angry when _____, etc. or 3) The Three Wishes question pr 4) Who are you?

Used as part of a clinical procedure, the projective methods contribute to the understanding of the more subtle factors that are involved in reading cases.

V. Interest Inventories

Interest is often the key that unlocks effort; it has a dynamic effect on the way students read. Consequently, a study of students' reading and other interests is an important part of any diagnostic procedure.

VI. Interviews

Interviews with the student are often most informative. A skillful interview is the surest means of gaining information and insight from the students.

The Instructional Program

The instructional program for the Reading Clinic should be guided by several general principles for remedial reading instruction:

1. Begin at the level at which the student can be successful. Regardless of his age or grade placement, the nonreader must begin at the beginning, both in material, and skills. The college student whose level of development is only at fourth grade must begin at that level.
2. Since the level of development of different skills and abilities are likely to be uneven in a given individual, emphasis should be placed on those skills and abilities which are most essential to immediate success, seeking always to maintain a balanced program.
3. Diagnosis continues with instruction. Continuous appraisal of progress is essential in order to place proper emphasis on particular skills or abilities. It also enables the teacher to identify areas in which reteaching is needed. Finally, continuous appraisal enables the remedial teacher to determine when each student is ready to profit from classroom instruction.
4. Compensation should be made for uncorrected, inhibiting difficulties. If possible, such difficulties should be corrected before or in connection with remedial instruction. Otherwise an instructional method would be chosen which permits maximal learning. Thus, a student with uncorrected visual difficulties may need shorter periods of near-point work. Those with emotional problems may require greater amounts of success and encouragement.
5. Success must be demonstrated as early and as consistently as possible. Therefore, every known means for developing successful performances is used by good remedial teachers. Direct assistance is appropriate in the teaching situation to avoid further practice of inefficient skills and abilities. Gradually, as students learn to use the necessary skills, the guidance is diminished.

6. Meaningful practice is essential in improving reading abilities just as it is in learning to swim or to drive a car. The practice must be sufficient to insure smooth and easy performance of the essential skills. For this purpose, much easy reading of the proper type is often used, but study type reading is also required in many instances. Particularly at the high school and college levels, laboratory periods are set aside for practice purposes.

7. Records of progress should be kept by both the teacher and the student. Tape-recorded selections of oral reading, charts showing the number of new words recognized, notebooks or card files of a new vocabulary, scores on comprehension questions answered correctly, records of books read, and students' reports on their use of reading in other classes are examples of records that may be used to encourage pupils toward further progress.

8. Independence in using the skills taught should be attained. Teachers often mistake the pupil's ability to cite the rules for phonetic analysis of words for his facility in the use of the rules. Critical analysis of short articles does not automatically guarantee ability to handle longer selections. Rapid reading of easy, familiar prose does not insure adaptability of rate to purpose and to unfamiliar materials. The ability to complete one carefully selected book may make the learner ready to accept another, while inability to locate a second one may block further reading. Thus gradually, students must be guided to independence in all reading activities appropriate to the classroom level to which they will return.

9. In choosing methods for teaching retarded readers those most likely to result in successful experiences with reading are most appropriate.

Materials

Materials for the development of reading skills are especially important if the retarded reader is to be helped. Because retarded readers are reading on a variety of levels, have different deficiencies which need correction, and respond to different subjects, no one workbook or textbook will suffice. Never before in the history of publication have we had so many materials available for the teaching of remedial reading as we have today.

There are many bibliographies of adapted materials which are readily available for selection of suitable books and drill material. Fare for the Reluctant Readers, Gateways to Readable Books, and Good Books for Poor Readers are among the many.

The selection of appropriate material for remedial work in reading is one of the most important problems the remedial teacher has to solve. Remedial teachers should keep four important considerations in view for the selection of material. They are:

1. The material must be suitable in level of difficulty.
2. The material must be suitable in type.
3. The material must be at the appropriate level of interest and format.
4. The material must be abundant.

Unfortunately, Phoenix College does not have a Reading Clinic. Inadequate space, lack of funds, general apathy, are the factors obstructing that possible program; however, we do have a Reading Institute that serves the community.

The Phoenix College Reading Institute was organized to provide a service to schools, parents, students and professional organizations. We take students of all ages from 7 to adults with corrective or remedial problems. Each student pays a fee of twenty-five dollars for an individual diagnosis and seventy-five dollars for an instructional session of fifteen weeks, one and one-half hours. This is a fast growing program and one day I hope to have at Phoenix College a program for our college students like the model I just presented.

How Can We Do More To Meet the Reading Needs of Our Students?

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"Brainstorming" is a technique to foster creative thinking. A specific problem is identified and participants in the session contribute ideas as quickly as they are formulated. Criticism is forbidden. Wild ideas are encouraged. Quantity is sought. Combination and improvement of ideas is welcomed. An optimum group should number about 25. A greater number of ideas are generated if individuals composing the group represent varied backgrounds. A group untrained in brainstorming should produce approximately 4 to 5 ideas per minute. People who have practiced the technique generate as many as 10 ideas per minute. The following ideas to solve the problem "How Can We Do More to Meet the Reading Needs of Our Students?" were produced by 15 people in a 30-minute session.*

1. Get administration and division heads into the reading center.
2. Give green stamps for attending.
3. Get a vocabulary and I.Q. correlation.
4. Develop shorter and more definitive tests.
5. Let students self-diagnose.
6. Let students self-evaluate.
7. Let students self-select materials.

* The brainstorming session that produced the ideas listed in this report was held on Saturday morning, March 21, 1970, at the Third Annual Conference in Portland, Oregon.

8. Have "walk-in" tutoring.
9. Every content teacher pre-test students for concepts and vocabulary
10. Content area faculty share strengths and weaknesses of students with reading teachers.
11. Each one teach one (students).
12. In-service training of faculty.
13. Pre-service training of content teachers.
14. Volunteers to tape record high interest stories.
15. Short sample lectures from academic faculty on tape.
16. Sample test questions from academic faculty.
17. Study techniques on cassettes.
18. Concentrate on motivation.
19. Use language experience approach with older students.
20. Tape conversations of students, type it verbatim, return it for revision.
21. Students tape a summary of reading.
22. Buy cassettes and recorders.
23. A workshop for tutors.
24. Library material for checkout in reading center.
25. Train para-professionals in reading.
26. Pair students, top student with the bottom student, continue pairing until middle student is paired with middle student.
27. Take career and personal inventories of students.
28. Students write autobiography of reading development.
29. Get away from the classroom--to lawns, coffee houses, etc.
30. Circle up in class.

31. Let remedial students write tests.
32. More informal relationships between instructors and students.
33. Memorize names the first day.
34. Classes held in professor's home.
35. Have a class in-put day, where students teach the class.
36. Use a contract with students.
37. Assign previous study and let students give one technique for the day.
38. Board of Regents or Board of Education come to reading classes.
39. College professors go back to classes.
40. Video tape reading class for dissemination to public.
41. Free exchange of paperback books.
42. Put paperback rack in gym.
43. P. E. instructors in charge of reading center.
44. A study hour for athletes.
45. A night program for athletes.
46. Test analysis for other professors.
47. Salaries for students.
48. Students evaluate instructors.
49. Anonymous end-of-course feedback.
50. During-the-course feedback.
51. Color coding of grade level materials and skills.
52. Student interaction on any question be encouraged.
53. Evaluate reading level of content area textbooks.
54. Counselors in reading center.

35. Counselors in dorms.
36. Money for counselors.
37. Teachers become questioners instead of answer-givers.
38. Recreational reading all over campus.
39. Book racks in hallways.
60. Illegal to use lecture notes.
61. Counselors give one lecture.
62. Cassette tours of library and other facilities for students to use at will.
63. Organized book discussions.
64. Book-of-the-Month type program.
65. Off-campus speakers (business and professional) tie in reading.
66. Tour of all faculty members through reading center.
67. Multi-level books in all academic areas.
68. Special academic area books with low vocabulary.
69. Every text tagged for readability.
70. A reliable readability formula.
71. Students tagged for readability.
72. Library books on cassettes.
73. Tape all reading center materials.
74. Unlimited funding.
75. Lost books replaced.
76. No check out of paperbacks.
77. Make a film on SQ3R.
78. Update obsolete reading films.

79. "Waste basket" method for paperbacks. (Have to be picked up from the floor. Someone might read at least the title.)
80. Budget money for students to buy books.
81. Every instructor provides a programmed vocabulary in his field.
82. Student makes seductive covers for books he reads.
83. Contest for most seductive cover.
84. Motivate students to go to cultural functions.
85. Multi-level audio-visual aids to go with content books.
86. Fill available seats with books, magazines, newspapers. Have to handle reading material in order to sit down.
87. Force new vocabulary into casual or classroom speech.
88. A year of internship in the reading center for all new faculty.
89. One hour per week for each faculty member in reading center.
90. One faculty hour per week for each student.
91. One faculty hour per week in SUB.
92. Instructors eat in student dining room.
93. Computer tie-up for audio visual aids for concepts or vocabulary.
94. Automated dictionary.
95. Audio-visual salesmen should know reading principles.
96. Teacher observes his class from observation room as they carry on without him.
97. Flexible program--start and end course at any time.
98. In all courses, student quits when he knows the subject.
99. No F's.
100. One unit classes instead of 3 unit. Complete one unit

satisfactory and then go on to second.

101. Mini-courses on thinking skills.
102. Free the reading teachers of a full teaching load.
103. Limit student load to 15.
104. Better concept of what reading teacher does.
105. Work with researchers, providing statistics for them.
106. Analyze student as to why he is there.
107. Team counseling and diagnosis.
108. Improve reading at the high school.
109. Improve reading at the pre-school.
110. Increase Upward Bound trend.
111. Teacher training assistants at the Junior College level.
112. More community involvement.
113. Every student expresses himself freely as to needs.
114. High school students tutoring college students.
115. College students tutoring high school students.
116. Saturday clinics staffed by college teachers.
117. Education for the good life instead of good living.
118. Students traveling from college to college for their education.
119. Students talking to high school students.
120. More flexible handling of federal funds.
121. Library mock-up in reading center.
122. College reading center becomes a community center.

Following the initial thirty minute brainstorming session, two ideas were discussed at length.

A. Book racks on campus.

1. Book racks in halls, locker rooms, inside and outside buildings. Saturate the campus.
2. Exchange books, two for one or even exchange.
3. Bring non-academic "readers" into class to discuss reading (building custodians, fireman, people who enjoy reading)
4. Utilize good-will stores, church bazaars, etc. to buy secondhand paperbacks.
5. Bring in unused home libraries (Students find themselves reading their own books)
6. Do not charge for lost books.

B. Mini-courses on thinking skills.

1. Call it "thinking" skills instead of "reading" skills. It takes away the stigma of reading.
2. Problem is not decoding but organization of thinking.
3. Work with small groups of two or three, or individually for a few minutes each session.
4. If scheduling is flexible, students volunteer to attend.
5. Ask people from every discipline to prepare a short tape on vocabulary in the discipline and ten-minute portion of a lecture.
6. Use language experience at all levels.
Legends of Pima Indians as told by tribal elders can be recorded. Children from grades one to eight re-told them; they were written; children illustrated them. Teachers developed motivational questions and thinking questions to accompany the forty-three stories. The result is reading material at all grade levels.
7. Use cartoons and comic strips for teaching and testing reference skills.
8. Use comic strips to uncover or teach values.

A Study Habits Program Using Modern Learning Theory Principles

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Few students are as effective in their school work as they would like to be. According to McCaul (8), Schubert (12), and Shaw (13), when students are asked to list their problems or check them on a Problem Check List, they mention difficulties with their studies more often than any type of problem. Other researchers, Carter and McGinnis (3), Hill (6), Wilking (15), in looking at students' actual study behaviors, show that many students have study problems and that the level of study skill is related to college grades.

The author believes that it is the students, in the final analysis, who set the standard of education by their study behavior. No matter how brilliant the lectures, most students would fail if they did not teach themselves by study outside the classroom. When we see the students as what they are—the primary tools of education—the problem of establishing effective study habits takes priority over all others faced by the college.

Recognizing this need, many colleges institute study skills courses. Typically, the courses consist of didactic lectures on study methods combined with exercises in workbooks. However, it is one thing for the student to listen and follow a lecture on effective study habits; it is quite another thing for him to put these habits to use outside the classroom.

The usual methods for study habit instruction in colleges suffer several disadvantages. First, they usually require a trained teacher or counselor who must work with small classes to be effective. Second, the typical program is not in a position to reach all students. The urgent needs of remedial or borderline students reduce the time devoted to better students. Third, there is little assurance that the skills being taught will be practiced by the students outside the classroom.

The Problem

The promotion of effective study habits demands both an analysis of the correct, necessary behaviors and an analysis of the existing behaviors that compete with them.

Lack of adequate stimulus control. The behavior of studying is usually not under adequate stimulus control, either by time or place. The typical student studies chemistry at any time and at any place he may happen to be. Thus, he is subject to all the interfering behaviors conditioned to those occasions. No one occasion becomes uniquely related to study.

Incompatible behaviors. Even when the typical student establishes a schedule of regular times and places for study, the immediately preceding occasion is likely to produce behavior competing with that of going to study. Thus, the student studies chemistry at ten o'clock in the library, if he can resist the reinforcement involved in having coffee with his friends.

Wrong behaviors reinforced. A typical student's actual study behavior consists of acts largely indirectly relevant to, even competitive with, learning. The student and 'significant others' (other students) agree that moving eyes across lines of print, underlining passages in a text, and copying into notebook constitute studying. But eye movement, underlining, and copying are not the behaviors teachers want the student to learn. Usually instructors want the student to reproduce the material, not point to it.

Aversive stimulus. Since the material to be learned is often aversive, and since the conception of study described above is commonly accepted by students, the student may believe that he has completed his responsibility by eye movement, underlining, and copying.

Unfortunately, typical reading behavior is usually not an efficient learning method. Many times the student will 'read' several paragraphs or pages before beginning to concentrate and will go on to new material before understanding the preceding necessary concepts.

Delayed reinforcement. Many methods, such as Robinson's SQ3R (11), have been developed to cope with the difficulties listed above. If used, they can produce improvements. The chief drawback in the methods lie in the phrase if used. It is one thing to convince a student that recitation is the core of learning; it is another thing to get him to outline a chapter with the book closed.

Recitation is hard work and the reinforcers of this difficult task are considerably delayed. It is very laborious to study in September for the reward of a final grade given in January.

Even if the student does practice an effective study method, there remains the problem of getting him to study in

the first place. Thus, the first problem is how to create conditions that will place the initiation of study by a student under effective stimulus control.

The purposes of this study habits program are: a) to place the initiation of study under stimulus control, b) to make the study occasion an effective stimulus for good study behaviors as defined by the author, and c) to accomplish this at a reasonable cost while using few professionals and reaching many students.

The program is based on modern learning theory pioneered by B. F. Skinner. According to Patterson (10), the learning theorists working within the classroom setting operate on a set of implicit assumptions about behavior and change: a) to work with the student in his environment, b) to take any technique or skill and place it into behavior terms, c) to consistently follow the student and what he does by charting, graphing, etc., and d) to focus on systematic change.

The Program—Phase One

Recruitment. The noncredit program is offered to freshmen, sophomore, junior, senior, and graduate students on a self-referral basis. The students are told that the professional believes she has a study method that would require them to study only in the weekday daytime hours (given that they are carrying a normal academic load and are not working during the day) and would lead to an improvement in grades.

Day One. A written contract stating the rights and obligations of the parties concerned is signed by the student, professional, and nonprofessional. The contract first states instructions given to the student are to be followed "to the letter." Failure to follow the instructions will result in the professional and nonprofessional's refusal to work with the student. Second, the student will meet with his nonprofessional each day, Monday through Friday, for a seven-minute conference. Third, contingent upon meeting with the nonprofessional for ten days, the student may arrange a conference with the professional to discuss whatever he wishes.

The behavioral objectives of the program, constructed according to Mager's (9) model are included in the contract.

1. Given a textbook of the student's own choice, the student will study (not become distracted, feel uncomfortable, nor daydream) for 45 minutes. The student will demonstrate this by self-reporting on the chart.

2. Given a textbook of the student's own choice, the student will study the text at the rate of (to be determined) words per minute. The student will demonstrate this speed by a timed-reading in the text.

3. Given a textbook of the student's own choice, the stu-

dent will "survey" one chapter in the textbook in three minutes.

4. Given a textbook of the student's choice, the student will "question" one chapter at the "questioning rate" of one topic heading section per minute (written).

5. Given a textbook of the student's choice, the student will "recite" one chapter in the textbook, with the book closed, at the "reciting rate" of one topic heading section in three minutes (written).

6. Given a textbook of the student's choice, the student will "review" one chapter in the textbook at the "reviewing rate" of one topic heading section in three minutes.

7. Given a textbook of the student's choice, the student will use the SQ3R method in studying the text, reading at the speed of (to be determined) words per minute. The student will demonstrate comprehension of the chapter by "reciting" for five minutes on the content, with the book closed. (See Appendix B, Contract).

In addition, the student is given an overview to the program to aid in the adaptation process. All assignments given the student throughout the program are in writing.

Day two. The student meets with the nonprofessional and professional to analyze his time schedule. He is asked to indicate which subject is his most difficult and what times he would like to study but never seems to get around to it.

For his assignment, the student uses the information given above. As an example, the student who has a free period at ten o'clock, immediately after his chemistry class, is told he should begin building his regimen by first, committing himself to go to the library to study chemistry every day at that time. Second, he is to leave on the first floor of the library all of his books except those relevant to chemistry. Third, he will go to a specified room and proceed to study chemistry. Fourth, if he experiences discomfort or begins to daydream he should leave the library immediately and join his friends at coffee, see his girl, etc. He must, under no condition, remain to study further.

The student records the time he spent in the library on his first day and all succeeding days. It is interesting to note that for the majority of students in this program, the average concentration time for the first day is under five minutes.

The assignment described in day two is suggested by learning theory; the author is trying to make use of all available reinforcers. The chemistry student expresses some anxiety over his inability to follow his resolution to study at ten o'clock. Since his test is his most difficult, it may be aversive and the ten o'clock hour may be in competition with social reinforcers. By asking the student to stay only a short time and giving him the option to leave as a formal requirement of the program, the aversive conditions of his having to give up com-

pletely the competing social reinforcers and of having to read difficult material for an hour are minimized. Aversion may further be reduced through having the approved option of leaving study, rather than having it the sign of student irresponsibility.

The conditions for positive reinforcement are provided when the student completes an assignment before leaving, even if it is small and dictated by a nonprofessional. In the conference following the library visit further positive reinforcement is given by the nonprofessional and by charting the time spent in concentration in the library.

Days four and five. In addition to the assignment given on day two, the student is told once he decides to leave the library he is to read one paragraph more of the chemistry text or solve the easiest problem assigned and then leave immediately, even though his interest may be renewed. The amount of work assigned, after the decision to leave the library has been made, is increased each day. After the amount reaches one topic heading section or three problems, no further increments are made.

Day 10. The student is instructed that if he decides to leave, then finishes the amount of material to be studied (one topic heading section or three problems), he is free to repeat exactly this amount of work again, or he is free to leave the library. If he wishes, he can repeat this amount again and again as long as he makes an independent decision each time.

Typically, by day 12 the chemistry student is spending forty-five minutes studying chemistry at ten o'clock each day. An additional course is then scheduled always following the above gradual steps. A different room and an appropriate hour is set aside. Eventually, each course is so scheduled and the student is spending one hour each day studying each course. A regular study schedule has been established.

The assignments of days 4 through 12 are suggested by learning theory. The principle of 'successive approximations' is used by requiring the student to master only a small part before he goes on. It is much easier to establish regular visits to the library than it is to establish this while also trying to get the student to remain there for an hour at hard work.

Reinforcement schedules are used in breaking the assignment down into small parts. Each set (at first one paragraph) receives positive reinforcement in the form of satisfaction over the completion of the assignment, satisfaction in earning the right to leave the library, and social reinforcement from the nonprofessional. Technically, the student is on a "fixed-ratio schedule" of reinforcement, requiring a fixed amount of work to be done for reinforcement. This schedule produces high work rates and resistance to "extinction" (giving up).

If the fixed-ratio schedule is "strained," requiring too

much work for a given reinforcement, not only will extinction occur, but the task takes on added aversive character. Unfortunately, often study assignments are on strained ratios, requiring a great deal of work for vague promises of reinforcement.

In the program, the work is broken up into small ratios and depends in part on escape from the aversive conditions of traditional study. The ratio is increased gradually.

The study efforts in the program are under a constant set of stimuli. The stimuli serve only as occasions for study—study which ends in reinforcement. In turn, this adds to the reinforcement value of the study room.

The Program--Phase Two

The author has selected Robinson's (11) study method of SQ3R as the behavior defining good study habits. Other study methods do exist and probably, with additional research, even better methods could be found. However, study habits would improve substantially if the methods we now have were put into wide use.

From experience the author notes that it is relatively easy to establish surveying behavior, a bit more difficult to establish questioning, and very difficult to establish recitation. However, it is during recitation that the student is practicing the essential behavior to be learned.

Day 13. Only after attending to study behavior in Phase One is well established is this phase begun. A worksheet introduces the student to the entire SQ3R method and he is asked to complete an exercise in surveying his entire text.

Day 14 and 15. An explanation and demonstration of the chapter survey using the student's text is given by the non-professional. Written instructions ask the student to survey his chapter before beginning his daily regime of study. On the following day, after demonstrating survey to the nonprofessional the student is asked to attempt to complete each chapter survey in three minutes.

Days 17, 18, and 19. Following the same sequence used for surveying the student is introduced to questioning. He is instructed to ask only one question for each bold face heading. After the student feels at ease asking oral questions he begins to write them down.

Days 21 and 22. Recitation instruction follows the above pattern. Stop at the end of each topic heading section, close the book, and spend three minutes reciting orally the material read are the student's instructions.

On the next three days the student is asked to stop all underlining and note taking, and to recite in writing. He is given a time limit to meet, so many words per minute, the speed

being slightly below his average speed for the type of material he is reading. The reading speed is gradually increased until the student reaches a reasonable speed.

Days 26 through 29. In learning the review step, the student is instructed to open his book immediately after recitation and rapidly pursue the material for errors of commission for three minutes. Then, he is asked to pursue for errors of omission, and finally, to make corrections in his written recitation.

Days 30 through 36. The daily review concept is introduced to the student: to recite the answers to the questions of the preceding chapter before beginning to survey the new chapter. Later, weekly review of one hour per subject per week is also assigned.

"Fading" of the artificial cues of the program begins with day 30. Conferences, with their social reinforcement and charting are held less frequently. Written instructions are eliminated.

All learning in Phase One and Two is cumulative; during Phase Two the student is continuing to practice his behaviors of Phase One and is adding additional subjects. Another example, while the student is learning how to review for errors of omission on day 29, he is continuing to practice daily the study behaviors of survey, question, read, recite, and review for errors of commission.

All steps in the practice of the SQ3R method contain the same sequence: the concept is introduced and practiced, a time limit is then placed on the behavior, and written performance is introduced only after oral performance is adequately achieved. The daily pacing and time limits for the SQ3R method are used as flexible guidelines. Conferences every ten days with the student, nonprofessional, and professional are used to determine what pace and time limits are appropriate for the student and his text.

The Use of Nonprofessionals

The nonprofessional has three responsibilities in this program: to disseminate the subject matter, to build an atmosphere in which change can take place, and to act as a positive social reinforcer.

In each conference the nonprofessional conducts with his student, the subject matter is structured in writing by the professional. In training, the nonprofessional progresses through the program as a student, using the professional as his model for the role he will soon play. Additional practice via role playing and video tape feedback is used for each conference.

With the help of the professional, the nonprofessional's role is to arrange superior conditions for learning by build-

ing a therapeutic classroom atmosphere in which a student can risk behavior change. As defined by the Rogerian position, this atmosphere is produced if the nonprofessional can communicate to the student three attitudes: unconditional positive regard, empathic understanding, and congruence.

Obviously, the selection process of nonprofessionals is of primary importance in obtaining nonprofessionals who possess these attitudes or who can be trained. This program interviews nonprofessionals from the ranks of upper-division and graduate students planning to enter the helping professions. Training materials include "Attending to Behavior Training Skills" based upon Michael Argyle's concepts in The Psychology of Interpersonal Behavior (1) role playing, and supervision via video tape.

Upon first glance, it may appear that unconditional positive regard, empathic understanding, and congruence are incompatible with the application of modern learning theory. Woody's Behavioral Problem Children in Schools (16) stresses that integration of these two positions is not only possible, but highly desirable. The author agrees with Woody that learning theory techniques are not, and should not, be impersonal.

The last role of the nonprofessional is to provide positive social reinforcement for the student's acceptable behaviors. Davison (4) shows that intelligent undergraduate students can be trained in four hours to carry out a behavior-control program which requires the application of learning principles. Staats, Minke, Goodwin, and Landeen (14) demonstrate the same, using high school seniors with a training period of three hours. Both studies support the theory that human beings can shape a much wider range of behavior than can a machine, as well as function as models for teaching complex patterns of behavior.

Reading the above studies, selected parts of Carpenter and Hadden's Systematic Application of Psychology to Education (2); Geis, Stebbins, and Lundin's Reflex and Operant Conditioning (5), and practice of the dispensing and withholding of reinforcers constitute the training materials in this area.

It is clear in this program that many moment-by-moment decisions are made by the nonprofessional. For this reason, supervision by the professional is continuous. Early in the program daily staff meetings are held gradually fading into weekly staff meetings.

REFERENCES

1. Argyle, M., The Psychology of Interpersonal Behavior. Baltimore: Penguin Books, 1967.

2. Carpenter, Finley, & Hadden, E., Systematic Application of Psychology to Education. New York: Macmillian Company, 1964.
3. Carter, H. & McGinnis, D., "Some Factors to be Considered in Conducting a College Adult Reading Program," Sixteenth Yearbook of the National Reading Conference, 1967, 16, 68-73.
4. Davison, G. C., "A Social Learning Therapy Programme with an Autistic Child," Behavior Research and Therapy, 1964, 2, 149-159.
5. Geis, G. L., Stebbins, W. C., & Lundin, R. W., Reflex and Operant Conditioning. New York: Appleton-Century-Crofts, 1965.
6. Hill, W. "Factors Associated with Comprehension Deficiency of College Readers," Journal of Developmental Reading, 1960 3, 84-93.
7. Holland, J. G. & Skinner, B. F., The Analysis of Behavior, New York: McGraw-Hill, 1961.
8. McCaul, R. L., "Student Personal Opportunities for the College Remedial Reading Teacher." School Review, 1943, 51, 158-63.
9. Mager, R. E., Preparing Instructional Objectives. Palo Alto: Fearon Publishers, 1962.
10. Patterson, G. R., "Behavioral Intervention Procedures in the Classroom and in the Home," University of Oregon's School of Education Monograph, 1969.
11. Robinson, F. P., Effective Study. New York: Harper & Row, 1964.
12. Schubert, D. G., "A Comparative Study of Retarded and Unselected College Readers with Respect to Certain Study Habits, Attitudes, and Personality Traits," Journal of Educational Research, 1953, 66, 471-474.
13. Shaw, P., "Reading in College," In N. B. Henry (Ed.), Development In and Through Reading, Chicago: University of Chicago Press, 1961. pp. 336-354.
14. Staats, A. W., K. A. Minke, W. Goodwin, and J. Landeen, "Cognitive Behavior Modification: Motivated Learning Reading Treatment with Sub-professional Therapy Technicians," Behavior Research and Therapy, 1967, , 283-299.

15. Wilking, S. V., "The Improvement of Reading Ability in College," Education, 1941, 62, 27-31.
16. Woody, R. H., Behavioral Problem Children in the School, New York: Appleton-Century-Crofts, 1969.